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EDITED BY

LUNSFORD P. YANDELL, M. D.,

PROFESSOR OF PHYSIOLOGY AND PATHOLOGICAL ANATOMY IN THE UNIVERSITY OF LOUISVILLE,

AND

THEODORE S. BELL, M. D.

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MEDICINE AND SURGERY.

JULY, 1852.

ART. I.—*Water as a Remedy in Disease.* By JOHN C. DARBY, M. D., of Lexington, K.

My attention was first called to the use of cold water in fevers, externally applied, by Dr. Cooke, Professor of the Theory and Practice of Medicine in Transylvania University, while I was a student in that institution. Dr. Cooke strongly recommended the practice taught by Dr. Currie. I have since several times read Dr. Cooke's Review of Currie's Medical Reports. At the same time we were very fully instructed by Dr. B. W. Dudley, as to the use of warm water as a local application or bath in almost all forms of inflammation. But I did not begin to prescribe the cold affusion or cold bath in fevers to any extent, till about the year 1845; when my attention was again particularly called to the subject by notices in newspapers of

the *Hydropathic Practice.* I again read Currie, and such works on Hydropathy as I could obtain. In 1847, being in bad health, I went to New England to recruit, and to see that country, and took the opportunity to visit Brattleboro, Vermont, and examine into the water-cure system for myself. Dr. Wesselhoeft, the very gentlemanly proprietor, received me with great kindness, and treated me with marked courtesy. There were from seventy-five to eighty patients under treatment. I was introduced to nearly all of them, and as it was a rare thing for a "regular doctor" to visit such an establishment, except to find fault and to criticise, and as I gave them all every assurance that such was not my purpose, I had every opportunity afforded me for examination and investigation. I inquired particularly into the history of almost every case; and indeed the patients seemed to take pleasure in having me listen to their past experience as invalids. I passed the time very pleasantly, and learned a good deal; and shall always remember my sojourn of ten days at Brattleboro, as among the most pleasant of my life—I would say, in passing, that all invalids who have made up their minds to try this practice, will, in my opinion, be pleased with Brattleboro. Dr. Wesselhoeft is a man of good sense, well informed in his system; and I believe him to be an honest man and a gentleman; and have no doubt that he will always give a candid opinion to all who consult him. As to the establishment, I can hardly conceive of one being more thoroughly adapted to the purpose. There is an abundant supply of cold freestone water, and the various baths are all admirably arranged.

What I have said above, I feel to be due for the kindness and marked civility with which I was received and treated at Dr. Wesselhoeft's establishment.

I was not in any sense a patient for water treatment, and so informed Dr. Wesselhoeft. But as I went there for information, I asked him to allow me to try his various

baths; which he readily consented to, and for which he made no charge—my object was to ascertain how far cold ablutions could be safely practiced *when the temperature of the body was not above the standard of health.* Dr. Currie had taught us how to use water in fevers. He says, "the affusion of cold water may be applied in a case of fever when there is no sense of chilliness present, when the heat of the surface is steadily above what is natural, and when there is no general or profuse perspiration." Dr. Currie, it seemed to me, had laid down and clearly established the rules to be observed in the use of cold water *in fevers*—I desired to study the other side of the question;—the use of cold affusions when there was no unnatural heat, and in other complaints besides fever.

I concluded that, if I would submit to the most powerful baths, so far as safety was concerned, they would include the less powerful. I was packed in the wet sheet three times; I took the running sits (from a cold spring) three times, and stood under the highest and largest douche twice. I found them all not only safe, but delightful and invigorating—I did not try the dripping sheet, nor did I apply a wet compress. I submitted while there to the regimen of the establishment, and at the expiration of the time (ten days) I found myself much improved in strength, and in a feeling of well-being.

It is unnecessary to give a description of the various forms of Hydropathic baths; it is to be presumed that nearly every reading man in the country understands what is meant by "packing in the wet sheet," "sits bath," "douche," "dripping sheet," &c. &c. The general conclusion to which I came as to the water-cure system was this; that it is admirably adapted to the treatment of many varieties of chronic disease, such as rheumatism, dyspepsia, piles, chronic bowel complaints, neuralgia, and that form of ill health which is the result of hard study or long continued and close confinement to business in

cities; cases in which a close diagnosis would show that there was no particular organ diseased. I speak now of Hydropathy as practiced in an establishment; I will have something to say of some of the appliances of Preissnitz in common-out-of-door practice, after a while. I suppose that the cases of chronic diseases which, with the above view, properly come under the Hydropathic physician, must be treated in *an establishment*. To make it the system and practice of Priessnitz, various baths have to be prepared; requiring, in the first place, an inexhaustible supply of water; and the water must be cold, and soft or free-stone water; moreover, as other laws of Hygiene are made to form a part of the system, the establishment ought to be in the country, or in villages, where the patients can take their daily walks through pleasant groves, away from the noise, and bustle, and dust, and heat of a city.

The first effect of the treatment is decidedly tonic. So far as I could learn at Brattleboro, there was very rarely a patient who was not delighted with the practice for the first few weeks; because it made them feel stronger and more cheerful, with a better appetite and more refreshing sleep. But after a while they begin to be depressed; the treatment is taking a stronger and deeper hold upon them, and they now become discouraged. This condition lasts for a longer or shorter time in different individuals until what is called the crisis comes. This crisis consists in the breaking out upon some part of the body of a rash, or of boils and various forms of cutaneous eruption. The patients generally improve when these occur, or at any rate they feel better, except the annoyance from the boils or eruption. But a majority of the cases are not so fortunate as to be relieved when the crisis appears: they get better for a time, and then fall back again; and perhaps it may be many months before they are cured. My opinion is, that the practice, as it is commonly pursued in

Hydropathic establishments, i. e. to be packed in the wet sheet at day light in the morning, with its accompaniments, sweating, plunge into a cold bath, &c.; then a sits bath about 10 or 11 o'clock, A. M., or a douche, or both; to be followed by another sits bath in the afternoon; and to wind up with a foot bath at night, is too much, to be continued for any great length of time; that in chronic cases, after it has been pursued for three or four weeks, or at farthest five or six weeks, there ought to be an intermission; that then the patient should be required to take the usual amount of exercise, and to live upon the prescribed regimen [which is always good enough] for a week or two; and that so far as water is concerned it should be limited to washing the body every morning, or the dripping sheet if you choose. Chronic diseases, to be treated upon the water-cure system, must be treated in an establishment especially fitted up for the purpose. Hydropathic doctors have an advantage over regular practi'ioners; their patients belong almost all to the better class of society; they are persons who have ample means, and who can afford to leave home and be absent for months at a time at a heavy expense. It is the interest of the Hydropathic doctors to have the patients remain at the establishment for as long a time as possible; and they seem to be justified in requiring them to remain until their health is fully restored; but if the patients would consult their own advantage, they would take a week or two's recreation during a season, and travel about, or visit some mineral spring, for change of scene and of society, if for nothing else.

The application of cold water as a daily bath may be used with comfort and pleasure through a long life-time; but to use it as a remedy in health, i. e. as it is prescribed for invalids, would be as injurious after a certain time as if a man were to take 20 grains of calomel every day.

Some impostor in Ohio, a few years ago, started the

humbug of "tomato pills," as a substitute for calomel, and they were sold by a druggist in Lexington. I answered the imposition at the time by simply stating the fact, that tomatos were known to be a wholsome article of food was conclusive proof that they did not possess any of the qualities, powers, or properties of calomel; and so with the water-cure system: as I remarked above in respect to one class of the patients who are benefitted by water treatment, they have no particular organ diseased; all that is the matter with them, is, that their whole system is relaxed, and worn down by excessive labor, either bodily or mental, and many of them would be as certainly cured by a tour over the western prairies, or a sojourn at the sea side, or at some of the mineral springs as at a water-cure establishment.

When a man starts a new system, either in education, in medicine, in religion, or any thing else, he is apt to forget how long the world has done without him and his system. Fortunately for the human family, all knowledge does not centre in the brain of one man; nor is it confined to any race or nation.

I am also satisfied that medicines ought not to be excluded from the treatment of patients in Hydropathic establishments. I have demonstrated to my own satisfaction, that water, as directed to be used as a remedy in disease by Currie and by the Hydropathists, is not incompatible with the use of medicines or *drugs* in the treatment of *acute disease*. This I will illustrate presently by giving some cases. And from what I saw at Brattleboro, and from the facts I have met with in Hydropathic books, I am certain that, many of their patients laboring under chronic affections would be much more speedily cured, if they were permitted to take some such medicine as a good physician would prescribe for them; and that some would be cured, who, as it is, are not cured at all.

The philosophy of health and of disease consists in

part, in a knowledge of the influence of the physical agents, by which we are surrounded, upon man's animal being.

It is the province of the physician to understand those general laws, and to keep them in view when called to the bed-side of a patient. Little benefit can be expected from medicines proper, unless the physician is governed by these great laws. It is a truism, which must be admitted by all candid and thinking men, that whatever may fairly be said *to cure* a patient, (using the term in its common acceptation), must do so in accordance with the laws of the animal economy, whether the man who prescribes understands those laws or not. The allowances and qualifications to this principle are these: 1st. The patient might have got well without *the* remedy, or without *any* remedy. 2d. He may have recovered in spite of the disease and remedy together. But yet there are cases where there can be no doubt, that the individual's life was preserved or saved by the remedy. I will give one case, by way of illustration. Several years ago, I treated an old lady for (as I believe) inter-susception. She had been vomiting for nearly four days; the matter thrown up appeared to be fecal; the pain was local and severe. When I first saw her, I gave an emetic, believing the disease to be colic; after that I gave nothing but opium in some form to relieve the pain and to quiet the stomach, and I used injections of warm water constantly and freely. But the patient grew regularly worse, and finally was almost exhausted. Happening, when I called during the fourth day, to have a galvanic battery in my buggy, I concluded to try it. It was applied by an individual, who held one of the knobs, placing the other hand over the bowels of the patient, and moving it about for fifteen or twenty minutes—it acted like a charm, the bowels acted promptly and freely, and the patient was entirely relieved, and she was soon in her usual health. Now I say that

this patient would have died, in all reasonable probability, if the battery had not been used. The remedy must have acted in accordance with the laws of the animal economy, and yet I have no idea how it did act. I have selected the above case, because it does not properly come under the head of any particular system of medical practice. It illustrates the principle, for which I am contending. The fact that I have not been able to find out how the battery acted, does not affect the principle.

Well, it may be asked, am I writing to defend the Hydropathic practice? I answer that I am not. But I maintain, that the Hydropathic practice, as such, is worthy of the investigation of the regular faculty, and demands it. I maintain that it has developed and is constantly developing some important principles; and I believe that there are many cases, especially such as those referred to, such as have no special malady, but are worn down by excessive labor, mental or bodily, who ought to be recommended by their physicians to try the practice. The medical profession have perhaps benefitted the world as much by teaching mankind the laws of Hygiene, and the simple means of relieving disease in families, as they have ever been able to do at the bed-side. Whatever promises to preserve the health of man and to prolong his life, commends itself to the medical profession.

The practice of Currie had become almost obsolete when the practice of Preissnitz became known. The world is under many obligations to Preissnitz for reviving the practice of Currie, if for nothing else.

M. Louis says, in the conclusion of his volume upon fever, that bleeding and blistering appeared to have afforded more relief than any other remedies tried by him. I think that he gives the history of forty seven cases that died. The most remarkable symptom, or one of the most remarkable and constant symptoms in these cases, was the heat of the skin. They were typhoid cases. Now, I

maintain that, had those patients been bathed according to the rules laid down by Currie, when their bodies were burning hot, M. Louis would not have had to express a doubt in his concluding remarks as to whether any remedy had been of any avail. What is fever? I answer that it is the generation of animal heat by the lungs so rapidly as to interfere with, or prevent the healthy performance of all the other functions of the body. It involves an increased action of the heart, but this is compatible with health; as when we take active exercise, or when the heart is excited by mental emotions. The chief element of fever is the continued, rapid generation of animal heat by the lungs; so as, among its first effects, to prevent the stomach from doing its office; it rejects food for the most part, or if the food is received, it is not well digested. There being then no supply of new matter to furnish fuel for this increased generation of heat, or combustion of oxygen; or to supply the waste of the body, the patient's body is necessarily reduced; and if there is a tendency to degeneration of the bowels, the glands and the mucous membrane become implicated. Now, I maintain that bathing the body with cold water, time and again, as may be necessary according to the rules of Currie; or the dripping sheet bath, according to Preissnitz, is a more rational and a more scientific practice than to bleed or to blister.

It is not necessary to discuss the *modus operandi* of the cold water practice in fever. To do justice to the question would require many pages. Suffice it to say, that the body is rapidly cooled; that the action of the heart is tranquillised; in a word, that, for the time being, the fever is broken, and the nervous system is so much invigorated, that the chances are always in favor of the fever's not returning; or if it does return, it will not be so high. Dr. Currie directs that the cold affusion should be resorted to as soon as possible, after the fever is fully devel-

oped; during the first hot stage if you can. Since 1847, I have treated many cases after this plan. But I also give medicines. I give calomel without any fear of salivation, and I have never seen a case where the gums were touched, in which I could say that it was in any way attributable to the water. I do not confine the practice to fever cases. Whenever called to a patient, whose skin is hotter than natural, with an excited pulse, and especially if the head be hot and painful, I either order the cold affusion; or that the patient be well sponged with cold water, let the disease be what it may. I rarely ever bleed in idiopathic fever; where it is complicated with inflammation I may bleed, or give an emetic; and there are cases in which I may not deem it necessary to use the cold water. The cold water practice of Currie, and even that of Preissnitz rationally understood, is not at all incompatible with the use of emetics, cathartics, or any of the ordinary methods of practice. Where there is an establishment with all the appliances of the water-cure system, I have no doubt that many cases of acute, as well as of chronic disease, may be successfully treated without medicines. But in ordinary practice, in town and country, where a physician may or may not have any convenience, he cannot, if he would, confine himself to water alone. Physicians need not fear that their practice will be injured by Hydropathy. If they will study Currie's Medical Reports, as old as they are, and study the Hydropathic practice, they will find themselves much better qualified to treat disease, than if they implicitly follow such authorities as Louis and Bouillaud. Too many lives are daily sacrificed to science "falsely so called." The study of anatomy, physiology and pathology can never be less important than they are at the present time; no discovery, however brilliant, can ever do away with a thorough practical acquaintance with the various branches of medical science; and it will always be a matter of the first importance to be able to

make a correct diagnosis. But while all this is true, it still remains a fact, that the great principles of physiology are too much lost sight of; the influence of the physical agents by which we are always surrounded upon our bodies, in health and in disease, is too little attended to. Water is one of the most common, and one of the most useful of all those agents. It may be modified in its application almost indefinitely. Let the profession, then, return to it again and give it a fair trial; and it will turn out, I doubt not, as it did when Currie published the first edition of his work; from one end of the land to the other, there will come up the reports of physicians, testifying to its great value as a remedy in fevers and other diseases.

Case I. Shortly after my return from Brattleboro, in August, 1847, I was called to see a patient, whose malady was what I would call old fashioned bilious fever. He was a large athletic man between twenty-five and thirty years of age. The fever was very high; his skin excessively hot; his pulse strong, full, and frequent. I ordered him to be undressed, and then to lie down on the floor, and as there was a spring under his room, we had the water brought up bucketful after bucketful, until I had dashed over him some five or six. We then rubbed him dry quickly, and put him to bed. He immediately fell asleep and did well for some hours; but the fever rose the next day at the usual hour; and I again repeated the cold affusion; but as the floor of his room was covered with water, when I first bathed him, and as his wife was his only attendant and nurse, I made him go into the yard the next time, (his room was on the ground floor, and he had only to step out of the door to be in the yard), and then poured as many buckets as before over him. The fever was again removed for the time being; and again he went into a comfortable sleep. I bathed this man some five times in the same way on succeeding days, and had no occasion to repeat it afterwards. I gave such medi-

cines as I thought suited his case; among which was calomel. He was not salivated, and by the end of ten days was entirely convalescent.

Case II. Soon after the father recovered one of his sons was taken with fever, which seemed to be of the same character. I visited this boy, a child of seven or eight years of age, very seldom; for his mother, a very sensible woman, told me that she could manage his case herself;—that whenever the fever rose, she made him undress, and go into the yard, and lie down, where she poured three or four bucketsful of water from the spring over him, and then rubbed him dry and put him to bed. His fever did not last longer than that of his father. I state the case of the boy to show that when the practice has been once tried in a family, although there may be great opposition at first, it soon gives way, and the family become so much pleased with the remedy, that they have no hesitation in trying it on all occasions.

Case III. The next case in order, was a complicated case of acute rheumatism. I was called to see this man on the 16th of January, 1849. During this winter I saw nine cases of partial paralysis; it was for the most part, in my practice, complicated with rheumatism; and as I learned from other physicians that they had many cases of a similar nature, I concluded at the time that paralysis was then an epidemic. I lost no case so affected. The medicines used were such as I employed in the case of the man, a history of whose disease I am about to relate. He was a large and portly man, about fifty years of age; red hair, and thoracic temperament; a blacksmith by trade. He told me that he had been ill for a week; that he had had no physician. Some twenty years before he had had a severe attack of rheumatism, which had confined him to his bed several months; that on the present occasion he had not slept at all for a week, and could not use either arm or leg. He was paralysed. When I placed my fin-

gers on his wrist to feel his pulse, he said it gave him great pain; that he could not bear to be touched. I found his pulse strong and full, his skin very hot, and his tongue coated. The patient was immediately placed in half a hogshead of cold water, and as it had been standing out of doors, it had some ice in it; so he was washed all over with ice-water. After rubbing him dry and putting him to bed, I bandaged each arm, first with a wide bandage wet with cold water, and then covered this with a dry bandage. That night he slept well. He was also given cathartic medicine, and put upon a solution of the nitrate of potash, (℥j to the quart of water), as a drink. The next morning when I visited him, he informed me that he had again been bathed in the tub, but that when he got into the water he found it uncomfortable, the water being too warm; his friends fearing the effect of very cold water, had carefully removed all the ice, and filled the tub up with water just from the spring. He required them to go out and get some ice and snow, and put it into the water. The cold bathing was continued from day to day for about a week; he took such medicines as I thought were indicated, but I put more reliance upon the cold bathing, and the wet bandages around the arms than upon any thing else; I dismissed the case as entirely convalescent on the 28th. It was some weeks before he recovered his strength, but he had no backset, and became, in a month or two, as strong and well as ever, and now boasts of his recovery under the water practice.

Case IV. *A Case of Croup.*—Patient, a little boy between four and five years of age—I have never seen a more marked case of croup than this. I first tried to vomit the child with ipecacuan and tartar emetic, but effected nothing; the emetic medicine was rejected by the time it was swallowed, without relieving the patient in the least. I was called to see the child at 2 o'clock, A. M., and it was now 4; finding that my little patient was

growing rapidly worse, I determined to try the wet compress. I wet a large towel in ice water, and folded it well over the chest and around the neck, and put a dry cloth over it. I also gave a decided dose of calomel. I then gave directions to renew the under wet cloth, as often as it might become hot. But before I thought it prudent to leave, the child had gone to sleep, and breathed with perfect ease. As this was during the prevalence of cholera in Lexington, and as I was very busy, I did not see the patient again until 9 o'clock, A. M. I found him sitting at a little table, eating broiled chicken and bread. He said he was well; which was the fact. There was no further difficulty. The child was well. The same treatment was used under my advice this summer, the case was croupy catarrh; and the child, a boy of seven or eight years of age, had been ill for four days. The remedy was altogether successful. The mother of the child was very much opposed to the application of the wet towel, but was much gratified at the result.

Case V. July 11th, 1849, I was called to see a young man about twenty-five years of age, who had the cholera. I found him cold; his body and limbs felt cold, and he complained very much of feeling cold. His skin was moist, but the perspiration was not excessive, nor did it ever become so. The discharges were rice water. They were not very large, though frequent. I gave him brandy, mixed with ice water, freely. He took a dose of calomel every four hours, until the discharges became bilious, and after that, the interval between the doses was sometimes increased. But I could not by any means bring about a re-action. I tried various stimulants, besides external applications, but all to no purpose. He continued in this condition for three days and nights. On the morning of the fourth day, I determined to try the cold dash. He was laid upon a sheet spread on the floor, and I then poured nearly a barrel of fresh cold water over him. He

was then quickly rubbed dry and placed between blankets in bed. Re-action commenced in a very short time, and we had no farther difficulty. He was very slightly salivated. This young gentleman has enjoyed better health since he had the cholera than he had done before. I consider it all-important, when cold water is used by affusion, that there be assistants upon whom reliance can be placed, to rub the patient dry, and to do it quickly. The brisk rubbing is absolutely necessary when the patient is cold.

I have given six cases, in three of which the temperature of the body was above the standard of health. In the croup case the temperature of the body was not above the healthy standard; in the case of croupy catarrh there was a slight fever. I have not specified particularly the medicines used in these cases. I do not consider it necessary, because my intention is merely to show, that cold water may be safely used in certain cases; and that it does not interfere with the use of medicines, but assists them; that calomel may be given with as much safety when we are using cold water, as if it was not employed at all. As I have already remarked, I consider the practice recommended by Dr. Currie particularly adapted to the fevers of the south and west; I mean miasmatic fevers, intermittent and remittent, where the re-action is excessive. I rely upon the cold affusion almost altogether to subdue the fevers of children. I prefer it to bleeding or emetics. I have the child undressed, quickly washed all over, and then wiped dry, and put to bed. I also frequently require my patients to wear a wet compress. I have afforded great relief in cases where there was a painful state of the bowels, by applying a wet compress over the bowels, with a dry one over the wet one, after the fashion of the hydropathists. The patients wear these compresses continually for weeks, day and night. The under cloth has to be re-wet whenever it becomes too hot, or begins to get dry. The outer cloth is necessary

to restrain evaporation, and to prevent the clothes of the patient from becoming damp. In one case of asthma, this wet compress has proved of very great service. The patient was a single lady, about thirty-five years of age; she had been afflicted with asthma from childhood; had tried a great many remedies with little or no relief; the attacks were frequent and very severe. I was called to see her when she appeared to be dangerously ill, and immediately applied the wet compress, using ice-water. The wet cloth was several folds in thickness, and covered the entire chest; it was covered with a dry cloth. The relief was almost instantaneous. It has been several years since I first prescribed for this lady. She has had only two or three severe attacks since I first saw her; and it has been very seldom that she has been troubled at all. She says she had never expected to enjoy such health. I believe that she still wears the wet compress. I know that she did wear it, with occasional intermissions for nearly two years. In the asthma cases that I have treated, during the spell, I have always found it necessary to re-wet the cloth as often as it began to get warm; like the application of cold water to a burn, it only affords relief while the water is cold; the pain in the one case, and the difficulty of breathing in the other, return as soon as the water begins to get warm. But between the paroxysms, the wet compress need not be changed, unless it becomes too hot, or gets dry.

To conclude, I would again say, that physicians ought to examine this water-cure system with care. Water is a remedy always at hand, and it is a powerful remedy. Why should we not try it, and use it if we find it valuable?

June, 1852.

ART. II.—*On the Treatment of Dysentery.* By ROBERT DURRETT, M. D., Resident Graduate at the Louisville Marine Hospital, during the year 1851.

There were admitted into the Louisville Marine Hospital, in 1851, forty-four cases of dysentery, of which number eighteen cases of an acute character were submitted to the saline treatment, in all of which except one it proved successful. The causes of failure in this case were undoubtedly the advanced stage of the disease and the extreme feebleness of the patient. The mode of treatment was as follows. The patient, according to his physical strength and habits, was ordered sulphate of magnesia, from one to four drachms every hour, till serous evacuations were produced, free both from blood and mucus. The patient was then ordered a Dover's powder, and generally an enema of water and morphia. It was not found necessary to repeat the sulphate of magnesia after the first day in any but a very few cases.

After the administration of the opiates, the patient usually fell asleep, and awoke declaring himself relieved, and continued to improve under the administration of an occasional opiate. Enemas of spirits of turpentine ℥ss, mixed with an egg, repeated once or twice a day, or oftener if the severity of the symptoms demanded it, had the happiest effect in six cases. When there was much tenesmus, a drachm of tinct. opium was combined with the turpentine and egg. The patient frequently retained this injection without complaint for several hours, and almost invariably passed it off either with a good discharge from the bowels, or one was sure to follow immediately. In all cases of dysentery, where the inflammation does not extend beyond the rectum, I should be disposed to give the turpentine enema a trial. Many cases of chronic dysentery were treated satisfactorially with copper and

opium. Some cures were very happily effected with this article, in which time-honored remedies failed.

Louisville, June, 1852.

ART. III.—*A Monograph on Fractures:* Being an Inaugural Dissertation submitted to the Trustees and Medical Faculty of the University of Louisville, March, 1852. By JAMES KNAPP, M. D., of Louisville, Ky.

The subject selected involves the solution of continuity of that part of the human organism, the office of which is to give form and support to the other parts of the body, to protect the more delicately organized and vital parts, as the brain and organs of the thorax, from the effects of external violence, to give attachment to the muscles, and enable man to perform the various changes of position and place, which, constituted as he is, are so essential to the continuance of his being, as well as happiness. Notwithstanding that the bones are admirably adapted to enable him to perform the various movements of will, and often to avoid danger and resist violence, yet many are subject to a great variety of accidents, some of which bring about the change which is the topic for present consideration.

We find the bones of various forms, as long, broad, and irregular, and also differing in density and power of resisting violence; some more exposed to injury from the office they perform, or the position they occupy; it is not therefore strange that, from the varied external forces that may act upon them, the muscular contractions as well as many predisposing causes, fractures should so much differ, not only in form, in the modification of treatment they demand, but in the time which nature, with the artificial aid of the surgeon, requires to effect the reparation of the injury.

Fractures have been divided into two classes—*simple* and *complicated*. A *simple* fracture indicates a solution of continuity of the bone, the bone being separated into two parts only, and not connected with an important injury of the surrounding tissues.

A *complicated* fracture is one in which the bone is broken in more places than one, is comminuted or crushed, is connected with a dislocation, or where there is an external wound, with or without protrusion of a fractured extremity, or laceration of a large blood-vessel, nerve, or injury of the brain, thoracic or abdominal viscera.

The diagnosis in most cases of fracture is not difficult; there is generally more or less distortion and inability to use the limb, if it be an extremity fractured; shortening, usually, unless the fracture be transverse, or so situated that another bone acts as a splint in preventing it; there is also pain at the seat of fracture, aggravated by motion of the injured parts, also crepitus when one fractured extremity is rubbed against the other; and there will be swelling from the extravasation of blood, or effusion of serum into the surrounding integuments. The pain and swelling, and inability to use the limb are not peculiar to fractures, therefore the distortion and crepitus are the most important and the reliable diagnostic symptoms.

The prognosis depends upon many circumstances, as the constitution, age, and habits of the patient, also upon the particular bone injured; the long bones, excepting their epiphysis, uniting much sooner than the broad and more spongy bones, the inferior maxillary, clavicle, ribs, and bones of the fore-arm uniting in the shortest period, those of the upper extremities sooner than those of the lower, the broad and spongy bones, and the epiphysis of the long bones requiring the longest time, while the olecranon, and acromion processes, the neck of the femur internal to the capsular ligament, and the patella seldom unite by bone, but by a ligamentous substance; it is said

however, if the parts are kept perfectly coaptated, bony union may take place. Fractures in very old persons, and in some other bad conditions of constitution, sometimes will not unite at all; and in cases where there is too much motion allowed at the seat of fracture, bony union cannot take place, and the result will be the formation of a false joint.

The treatment of fractures consists, first, in relaxing the muscles that act in displacing the parts, and then, aided in most instances by firm yet gradual extension, and counter extension, placing their parts as nearly in their natural position as possible, after which the common roller, or in fractures of the lower extremities, the bandage of Scultetus should be applied, commencing at the extremity of the limb, sufficiently tight effectually to control the œdema and to confine the muscles, and prevent their contracting and displacing the parts. Splints, usually of wood, and as long as the fractured bone, and in some instances of greater length, having been padded with some soft material, as hair, tow or cotton, should be firmly bound to the limb, with pieces of tape or bandage, in order to prevent all motion at the seat of fracture, and retain the limb at its natural length and straightness. The dressings may require to be loosened when swelling comes on, and again to be tightened as it subsides, and if at any time an irregularity should occur, it should be immediately rectified. The parts should be kept constantly wet with cold water, or sugar of lead water, or in some instances warm water will be admissible; and quietude and the recumbent posture, in most cases, should be strictly enjoined; while the diet should be light and the medicines adapted to the symptoms of the case. In some instances, as where the patient is young and plethoric, and there is reason to believe there will be much swelling and high inflammatory action, blood should be abstracted; but in old and enfeebled constitutions, and where it is evident the vital

powers will be greatly taxed previous to recovery, blood-letting should generally be avoided. In complicated fractures, the various complications will require special treatment. If there be a dislocation, it should be reduced previous to the replacing of the fractured parts; if an artery be wounded, it should be tied, or if there be an external wound, it will require appropriate dressings, or if inflammatory action should be threatened in internal organs, it will require the usual treatment. But if the thigh bone, or bones of the leg, are very much broken, as in bad forms of comminuted fracture, and more especially, if near or complicated with injury of the knee joint, or if there be extensive laceration of the soft parts, together with injury of a principal blood vessel, or nerve, it may be advisable to amputate as soon as the shock of the injury has been sufficiently recovered from, or if after any fracture of an extremity, traumatic gangrene should commence, amputation should at once be performed.

The question may now arise, how are broken bones reunited? It is evident when a fracture takes place, that not only is the osseous matter divided, but also the vessels and nerves of the bone, the medullary substance, and periosteum; and also that the surrounding textures are more or less injured; blood is effused; the reparatory process soon commences by a deposit of coagulating lymph, which stage is followed by that of fibro-cartilage, then cartilage, and finally that of ossific matter. Meanwhile, blood-vessels and nerves have become extended through the new formation, and the medullary cavity becomes re-established, the new bone having passed through precisely the same stages of formation as those of original bone.

Having thus far considered fractures in general, particular fractures will now claim attention; but in treating of the latter, my intention is to be as brief as possible, and not to dwell upon much but what is peculiar to each.

The cranium from its occupying the highest part of the osseous system, and from its being a wall of defense to a vital organ, the most wonderful of all organs, the organ of mind, serves as a very suitable point from which to commence this part of the subject.

Fracture of the *cranium* may occur where the direct force is applied, or at a distant part, may consist of a simple fissure without depression, or both tables may be depressed, or the external table in middle-aged persons may be driven into the diploë, while the internal table remains uninjured, or the internal may be fractured and depressed, and produce upon the brain all the effects of compression, while the external remains entire. I need only add, that if there be depression sufficient to produce symptoms of compression, or if it be a punctured fracture, the depressed parts should be restored, or detached spicula removed by the aid, in most cases, of the trephine.

Fracture of the *ossa nasi* will be recognized by the depression and irregularity, which in most instances, is quite manifest.

The reduction may be effected by passing a strong probe into the nostril, then with the fingers placed externally, the parts can easily be coaptated. The parts will retain their position without dressings.

Fracture of the *inferior maxillary* may occur at any portion of its extent; its most usual situation is near the middle of the horizontal ramus. The fracture will be known by the irregularity of the teeth, and laceration and bleeding of the gums. If there are loosened teeth they should be replaced; and the fractured parts brought evenly together, and if there be much tendency to redisplacement of the fracture, a tooth that is firm in its socket on one side of the fracture may be fastened to one on the other side, with a silver wire or silk ligature; the teeth of the lower jaw, should then be placed firmly against those of the upper, a compress reaching from the angle of the

jaw to near the chin, should be placed beneath the jaw, a roller should then be passed by several successive turns under the jaw, up along the side of the face over the head, then several times horizontally, encircling the temple, occiput, and forehead, then by additional horizontal turns carried around the back of the neck, under the ear, over the point of the chin; a piece of roller may then be fastened to the turn at the middle of the forehead, and carried back over the top of the head, and secured to the one at the back of the neck; and pins should be inserted at each point where the roller has crossed.

Fracture of the *clavicle* is usually produced by a fall upon the elbow or shoulder. The shoulder will be depressed and fallen forward and inward, the distance between the acromion and sternum will be shortened, and there will be irregularity at the seat of fracture. The shoulder should be raised and carried outward and backward; a wedge-shaped pad should be placed in the axilla, with its large extremity upward, and confined by turns of the roller passed around the body including the pad; the elbow having been carried forward upon the chest, should be firmly supported by the roller, passed by several successive turns from the opposite shoulder over the fore-arm near the elbow, then under the elbow, around behind the chest again to the shoulder; after which the roller should be passed horizontally around the body including the arm, and the fore-arm should be placed in a sling.

Fractures of the *scapula* are of rare occurrence, yet they may take place at its neck, acromion, and coracoid processes and inferior angle. The symptoms of fracture of the neck, are depression under the acromion, and crepitus when the shoulder is moved; the part can easily be replaced, but will immediately become again displaced when the support is withdrawn. The reduction is effected by elevating the head of the humerus and pushing it outward; the position should be retained by a wedge-shaped

pad in the axilla, as before directed, and the roller so applied as to keep the elbow firmly elevated, and the fore-arm should be supported.

The fracture of the *acromion* may be known by the depression at the point of the shoulder, the fractured portion being drawn downward; by the irregularity felt by tracing the spine of the scapula and by the crepitus that may be produced when the fragment is restored, and the arm rotated. The arm should be raised in order to restore the fragment, a wedge-shaped pad with its large extremity downward, should be placed between the body and the lower portion of the humerus, and the elbow should be kept well supported in order to keep the fragment sufficiently elevated, and the arm should be confined to the chest, and the fore-arm placed in a sling.

The fracture of the *coracoid* may be known by the inability to carry the arm forward and upwards, also by pressing with the finger upon the fragment. The arm should be brought forward and confined to the chest, and the fore-arm supported in the usual way.

The fracture of the *inferior angle* may be detected by fixing the point and then moving the shoulder. The arm should be carried forward upon the chest, and a compress placed against the fragment; a roller should then be carried several times around the body confining the compress against the angle, the arm should then be included by a few turns, and the fore-arm should be kept in a sling.

Fractures of the *humerus* have been divided into those of the neck, shaft, and inferior extremity.

The fracture of the neck may be recognized by the inability to raise the arm, by the irregularity that may be felt by pressing upon the fracture from the axilla, and by observing that the head rests in the glenoid cavity, and does not move with the shaft when the arm is rotated. The parts having been coaptated, and a roller applied to the entire extent of the limb, a splint should be applied,

extending from the olecranon to the axilla, one from the bend of the arm to the acromion, another from the external condyle as high as the second; these should be secured to the limb by turns of the roller; a wedge-shaped pad should be placed in the axilla, with its large extremity upward if the lower fragment is drawn inward, but the reverse if it is drawn outward; the arm should be confined to the chest, and the fore arm rest in a sling.

The fracture of the shaft will require a roller, four splints, and a sling; care must be taken in this, and in fracture of the neck, that the arm is not elevated by the sling.

The fracture of the lower extremity, like other fractures near a joint, should receive much care in diagnosis. The existence of the fracture having been ascertained, the parts should be coaptated, and the limb bandaged and retained in a flexed position; two pieces of paste-board each cut at right angles, should be applied to the limb, one to the inside, the other to the outside, over which the roller should be applied, or in order to afford more firm support, angular wooden splints may be used. The angular splint with a screw will be found most convenient for varying the angle of the limb; daily passive movement of the joint should not be neglected in this or other joints near a fracture as soon as the parts have so far united as to admit of it; by this means anchylosis may frequently be prevented.

Fractures of the *fore-arm* are divided into those of the olecranon and coronoid processes of the ulna, of the shafts of the radius and ulna, and of the lower extremity of the radius.

The fracture of the olecranon may be the result of muscular contraction or external force. It may be known by the inability to straighten the arm while it can readily be flexed; by the inability of the fragment, and by the depression at the back part of the elbow, caused by the ole-

cranon being drawn up the arm, sometimes to the distance of one or two inches. The arm should be placed in a straight positton, the fragment can then be restored; a compress should be placed against the upper portion of the fragment; a roller is to be applied from the lower extremity of the limb, and passed in the form of the figure 8 around the elbow, confining the compress against the fragment, then continued to the shoulder, in order to prevent contraction of the triceps muscle, and a straight splint suitably padded, should be confined to the fore-part of the limb.

The fracture of the *coronoid* is rarely met with, yet may occur from contraction of the brachialis muscle. There will be difficulty of bending the elbow, and the ulna will be dislocated backward. The ulna should be drawn to its place, the limb bandaged, and an angular splint applied. The angular splint should also be used in other cases of fracture of the fore-arm near the elbow. The fracture of the shafts together, or singly, may be known by the irregularity; and crepitus when the humeral extremity of the fore-arm is fixed, and the other extremity rotated. The fracture may be reduced by making pressure along the interosseous space while extension is made at the wrist, and counter-extension at the elbow; then two splints of at least three inches in width, to extend from the elbow to the points of the fingers, and padded most thickly along their middle line, in order to press the muscles into the interosseous space, should be applied, one to the palmar, the other to the dorsal surface, and confined by the roller; or the compress may be first applied, then the roller, and then the splints. The fore-arm and hand should be supported in a sling with the thumb uppermost.

The fracture of the lower extremity of the *radius* should be treated as if situated near its middle, with the addition of a compress along the dorsal, another along the palmar side, over the most projecting parts.

Fractures of the *carpal and metacarpal* bones will require a soft compress to be placed in the hollow of the hand, and a padded splint to be applied upon the palmar, another upon the dorsal side, extending from the elbow to the points of the fingers.

Fractures of the *phalanges* should be dressed with a roller, and four splints, two of which should extend from the wrist to the point of the finger.

Fractures of the *ribs* may be known by the lancinating pain when the parts are moved; by the irregularity at the seat of the fracture; and by the crepitus when the hand is placed upon the part and the patient coughs. A wide roller should be passed several times, tightly around the chest, and shoulder pieces should be attached to the turns to prevent their slipping downward.

Fracture of the *sternum* should be treated in the same way as fractured ribs.

Fracture of a *vertebra* may occur either at the body or spinous process. If the body be fractured, no attempt should be made to reduce the fracture, for such effort would probably be attended with the immediate death of the patient. Thorough antiphlogistic treatment should be early adopted; although recovery cannot be anticipated.

When the *spinous process* is fractured it should be replaced, and retained by a compress and roller; this fracture, unless complicated with injury of the spinal cord, will result favorably.

Fracture of the *os innominatum* can be produced only by great force; and is usually attended with some fatal complication. If there be displacement of the fragments the muscles acting upon them should be relaxed, and the parts replaced; a broad bandage should then be placed around the hips, and the remaining treatment adapted to the circumstances of the case.

Fracture of the *os coccygis*, or lower portion of the *sa-*

crum, may be reduced by passihg the finger into the rectum and pressing upon the displaced part; the bowels should be kept relaxed.

Fracture of the *femur* may take place at the neck, shaft, or inferior extremity. The fracture of the neck may be within, or external to the capsular ligament; the limb will be shortened and generally everted; and if it be drawn to its former length and rotated, crepitus will be manifest; if this extension be discontinued the limb will again become shortened and everted. A foot-board with two mortices should be provided; also two splints, each long enough to extend from the axilla to several inches below the foot; the upper extremities should be prepared like a crutch, the lower to pass through mortices of the foot board; also two long bags filled with chaff to apply to the insides of the splints, and a third to be placed between the limbs; a mattress, tapes, and a splint cloth should be arranged, and the patient placed upon them; the fracture should then be reduced, the feet confined to the foot-board, the long bags applied to the splints; and rolled in the splint cloth, the lower ends of the splints passed through the mortices and firmly secured, the upper ends bound to the shoulders; the third bag placed between the limbs, and lastly the tapes should be tied.

Fracture of the shaft has been successfully treated according to the following plan: A mattress should be provided, upon which a sheet should be placed, then pieces of tape at intervals of ten inches, over these a splint cloth a yard and a half long, and as wide as the length of the limb, over this a strong piece of paste-board to apply to the posterior part of the thigh, and to extend several inches above and below the fracture, then strips of scultetus bandage; and a large handkerchief should be placed at the upper edge of the splint cloth, another at its lower edge. Splints should also be prepared corresponding in width to the limb, one to extend from the axilla to six

inches below the foot, one from the perineum to the same distance below, another to be of the length of the femur; the long splint should be formed and padded at its upper extremity like a crutch, a short distance below it should have two mortices, also one near the lower extremity, a little above a small block of wood should be attached, then two bags of suitable width and as long as the limb, should be prepared, and filled with chaff. The patient should then be placed upon the bed, and the limb placed upon the strips of bandage; one handkerchief should be used to produce extension at the ankle, the other counter extension at the groin, meanwhile the broken extremities should be placed in apposition, the bandage applied, the splints rolled in the splint cloth, the bags interposed between the splints and the limb, the extending and counter extending bands passed through the mortices and tied; then the anterior splint should be applied, the tapes tied, and a bandage passed around the pelvis, including the long splint. Care should be taken that the limb is drawn to its exact natural length, and the parts placed in their former relative position.

The fracture of the lower extremity may be treated upon the same plan as the fracture of the shaft.

Fracture of the *patella* is usually transverse, and generally caused by muscular contraction. The limb should be placed upon a padded straight splint, and kept somewhat elevated; and during the first few days means should be adopted to subdue the inflammatory action; this having been accomplished, a bandage should be placed above, another below the patella, and these should be approximated on each side of the patella by strips of tape; care being taken that the fragments are kept in close contact. The other forms of fracture of the patella may be kept approximated by the aid of the straight splint, compresses, and a roller.

Fracture of the *leg* may occur in both bones together,

or in either singly. If the tibia is broken near its upper extremity the fracture should be reduced, and a scultetus bandage applied; then two splints should be prepared to extend from the upper part of the thigh to several inches below the foot, and the outside splint should be provided with a foot-piece; they should then be well padded, and confined to the sides of the limb; and the limb should be kept somewhat elevated. Fracture of both bones at their middle or lower portions, should be treated with the scultetus bandages, and two splints to extend from the knee to below the foot, and foot-piece. If only one bone is broken, but one splint need be used, and that should be placed on the side opposite the fracture. Care should be taken to keep the foot from turning too much inward or outward, and from falling below a proper line with the leg.

Fractures of the *foot* are frequently attended with severe injury of the soft parts, making amputation necessary. The fracture of the os calcis will require a bandage to be applied above the knee, and the knee to be kept flexed, and the heel elevated by a piece of tape drawn tightly from the heel of the slipper to the bandage. The other fracture of the foot will require the application of a roller, compresses, and splints so used as to preserve the proper position of the foot.

ART. IV.—*Chemical Examination of the Mineral Water of Cooper's Well, near Raymond, Mississippi.* By J. LAWRENCE SMITH, M. D., Professor of Chemistry in the University of Louisiana.

The water which forms the subject of this report, is one which has enjoyed a high reputation for medical virtues during several years, it being more especially beneficial in chronic diseases of the intestines.

The water analyzed, was collected in the month of December, 1851, and part of the examination was made at the source.

To most persons who visit this watering-place, its discovery is associated with some curious dreams of the remarkable individual whose name it bears, but its medical virtues remained unknown for sometime after its discovery, and were first ascertained by persons living in its neighborhood. The water is derived from a well dug to the depth of 107 feet in a porous sand rock, which is covered in some places with a coarse conglomerate of pebbles, consolidated by oxide of iron. The depth of the water in the well seldom exceeds five feet; it is said to flow in at the bottom from three different sources, and it will be well to examine their general characters separately, so soon as the water from them can be obtained. It flows most abundantly in winter, and therefore the summer water might be expected to contain more mineral matter. The country around is broken, remarkably dry, enjoying a reputation for general salubrity, and its convenient proximity to the Vicksburg and Jackson railroad is calculated to make it the first watering-place in the South-Western country, either as a resort for invalids or pleasure seekers.

Chemical Examination of Cooper's Well Water.—Temperature, 64° Fahr., the air being at 53° Fahr.

Taste—Not unpleasant; slightly mineral.

Odor—Little or no odor, although at times, it is said to have distinctly that of sulphuretted hydrogen.

Color—Transparent, with small yellow flakes floating in it.

Specific gravity, ... 1,00,147.

Gas, contained in one gallon,

Composed of oxygen, ... 20

" " nitrogen, ... 68

" " carbonic acid,—trace;

" " sulphurretted hydrogen,—trace.

Substances contained in one gallon, are,

Sulphate of soda,	11.705	grains.
" " magnesia,	23.280	"
" " lime,	12.122	"
" " potash,	.608	"
" " alumina,	6.100	"
Chloride of sodium,	4.260	"
" " calcium,	4.025	"
" " magnesium,	3.480	"
Silica,	1 801	"
Peroxide of iron,	3.362	"
Crenate of lime,	.311	"

The deposit which collects from concentrating the water, or after it has stood for a time, contains in 100 grains:

Crenate of lime,	2.
Peroxide of iron,	35.
Sulphate of lime,	25.
Water,	38.

The iron was found altogether in the yellow particles which float about the water, although it is more than probable that at certain seasons of the year it must be found in the clear water also.

The water when kept loses none of its properties, as has been proved by strict analysis; and at all times, when the effects of the iron are sought for, the sediments should be drank along with the clear water.

The concentrated water appears to lose nothing but a portion of its sulphate of lime. So in that form, when diluted with pure water, similar medical effects might be expected to those produced at the spring; but of course like all other mineral waters, it is only at the source that the patient can expect most advantage; and it is equally true that precautions are to be observed in the use of Cooper's well water.

The diseases to which the water appears mostly adapted, are chronic intestinal diseases, which embrace a class

too numerous to be mentioned in this report. It has also been found eminently useful in dropsical affections, as well as in inflammation of the bladder. In the short space of twelve or fifteen years, it is impossible to discover all the diseases to which a water of this description is adapted, as chemical analysis alone cannot guide us in making its application. The remarkable virtues of this water, in the character of diseases before alluded to, are known and acknowledged by several of the most eminent physicians of New Orleans, Mississippi and Alabama.

BIBLIOGRAPHICAL NOTICES.

ART. V.—*Tableaux of New Orleans.* By BENNET DOWLER, M. D.

This pamplet gives a great deal of valuable information, geographical, commercial, geological, and sanitary, respecting one of the most important cities in our country. It is written with all the learning and laborious industry for which its author is distinguished. Under the head of "*The Necropolis of New Orleans,*" he has the following:

In the year 1540 I ascertained, by careful inspection, the ages of a great number of persons buried in the cemeteries of New Orleans, copied from monumental inscriptions, taken at random, that is, without picking or selection, in series of thirty each. The numerical results of this inquiry, in the absence of more authentic registries of births, deaths and ages, may be valuable in determining approximatively the duration of life, and the sanitary history of the climate of New Orleans. The necrological inscriptions in the different cemeteries of this city are not only illustrative of its vital history and sanitary perturbations, but are also, to a considerable extent, characteristic and peculiar.

The ideal of vital statistics, as a method, presents sundry conceptions as absolutely true, in advance of empirical processes, and their actual results in relation to both the statics and dynamics of population. But how clear soever the theoretical principle may be, its useful application is alone to be found in the experimental.

For scientific purposes, the facts of vital research and reasoning must be numerous, continuous, and must extend through long cycles of time. The most accurate record, comprehending the history of every individual in

existence for one year, or one dozen of years, would utterly fail to solve some of the most important vital problems, which anterior to experience and its results, are known to be solvable, and within the legitimate range of empirical possibility. Synthetical reasoning determines, in advance of experience, that the mean duration of life in a country can be inferred from a record of the ages of all the natives dying within its limits. The record of one entire generation would not only show the exact duration of the mean life for that period, but in connection with a sufficient number of similar previous records, would indicate, with slight and unimportant variations, the mean duration and expectation of life for succeeding generations. In the science of population, however, a generation commencing at a given era, would not be complete as a vital cycle until the last individual then living shall die. For example, an individual born in 1851, might not die until 2020, provided he should live as long as Henry Jenkins did—that is, 169 years. A registry of an entire generation will have been completed at the death of the oldest individual. The sum of all the ages of a given generation, divided by the whole number of individuals, will give the mean age.

Without any regard to the actual census, suppose the fixed creole and acclimated population of New Orleans to be 100,000, and that immigration and emigration be wholly arrested;—suppose four children to be born and four persons to die annnually for every one hundred inhabitants; then the population will be stationary, without increase or decrease, and how much soever individual ages may differ, the average life will be twenty-five years. But in case only two die in the hundred, the births undiminished, the population will increase annually two in the hundred, or for the city two thousand; the whole number of births will be four thousand, and the whole number of deaths two thousand; then the average life will be double—will be fifty instead of twenty five years. Suppose that during the year 100,000 persons come temporarily into the city, and lose two in every hundred, all the survivors returning home, then the deaths and births will be equal, the average life will seem to be reduced to twenty-five, and the increase neutralised; all of these conclusions would be necessarily false, for want of correct data, com-

prehending all the essential elements entering into the numerical process, static and dynamic.

Although four births and four deaths annually for every one hundred persons would cause the population to be stationary, and the mean life to be twenty-five, yet, with respect to the latter, a single year might give a result altogether different; and so of a very limited number of years; thus, one dying aged one hundred, another fifty, a third twenty, and a fourth ten, the average might be double that which has been named. But in a period sufficiently prolonged, such excesses would be reduced or equalized. In tossing a dollar in the air the same side might fall uppermost for several consecutive times; but if the operation be continued sufficiently long, this marked inequality disappears forever. The same principle prevails in vital statistics, as well as in numerical medicine.

There are, indeed, a great many elementary questions which it is desirable or necessary to consider, in order to arrive at satisfactory conclusians concerning the vital condition of New Orleans.

What is the annual mean number of the resident creole and acclimated population? What is the annual mean number of strangers, and time of their temporary residence? What is the mean number of births, deaths and ages of each class, not to mention internal and external relations, topograthical, ethnographical, physioiogical, sanitary, industrial, pecuniary, educational, moral, religious, social, civil, in the white, black, red, and mixed races?

By the general custom of mankind—one not only in accordance with good taste, but with sanitary requirements—the dead are consigned to the ground—"earth to earih;" but in New Orleans a different method of sepulture prevails. In most of the cemeteries, interment in the ground is wholly interdicted, elevated vaults and tombs only being used. The necessity of this method of entombment, for all who can afford the expense, is easily explained by referring to the topography of the city. A grave in any of the cemeteries is lowor than the adjacent swamps, and from ten to fifteen feet lower than the level of the river, so that it fills speedily with water, requiring to be bailed out before it is fit to receive the coffin, while during heavy rains it is subject to complete inundation. The great Bayou Cemetery is sometimes so completely inundated

that inhumation becomes impossible until after the subsidence of the water; the dead bodies accumulating in the meanwhile. I have watched the bailing out of the grave, the floating of the coffin, and have heard the friends of the deceased deplore this mode of interment. A young Irish woman, on seeing her husband's coffin lowered into a grave of welling water, exclaimed repeatedly; "Oh, Mike, it is a dear burying to you to be buried at the Bayou! Oh that you should come to this!" It is this feeling that has built the different cemeteries which constitute the great necropolis of New Orleans. Interest, to say nothing of the vanity of friends, requires inscriptions to identify a vault, which is private property, purchased under a written title or conveyance. Hence, these monumental inscriptions, from their constancy, accuracy and number, afford data which, in the absence of exact registries, are probably more trustworthy and valuable than can be found in any other existing necropolis. These necrological monuments will augment from generation to generation, and must hereafter prove more useful to the vital historian than the pyramids of Egypt, or the countless millions so carefully embalmed and deposited in the catacombs of that country, forty centuries ago. The ethnologist might even now commence his lesson among the tombs. The Caucasian is separated from the negro race. In some cemeteries the Irish, in some the German, in some the Anglo-American, in some the French type predominates.

The monumental evidence to be offered in this tableau, in relation to the salubrity of the city and the length of life, compared with other places, is doubtlessly imperfect. The principal objection to which it is liable, appears to be this; namely, very young children may not have had inscriptions on their vaults, as constantly as adults; though this hypothesis may be incorrect. But admitting that it is true, this source of error is neutralized, it may be supposed, by an undeniable fact, that in all the cemeteries, even those which reflect the creole life most truly, as the Catholic, strangers, victims to the climate, who "liveth not half their days," are buried, and being counted, tend to shorten the average life probably as much as the supposed omission of infantile inscriptions tends to enhance it. The evidence, upon the whole, if not demonstrative

possesses probability, and is offered for what it is worth, in the absence of more exact data.

In the following enumerations, fractional parts of a year are reckoned as one year when they exceed six months, or fall short of eighteen months, and so of all fractions in more advanced ages. In all cases it was deemed necessary, in recording a series of ages, not to reject any because they were short, nor to seek any because they were long. Thus, on one occasion, having completed the series for the time and the place, I came immediately to an inscription upon a well known negress, aged 107 years and 5 months, born in 1732, died in 1839, but the rule adopted excluded this, as well as other similar cases. In Lafayette cemetery, as the sexton informed me, there is a negress slave buried aged 110. A similar age was found in the Catholic cemetery, after having finished the series. But all these were omitted.

The old Catholic cemetery, (No. 1, Basin street,) in which nearly all the inscriptions are French, 13 only were distributed among all other languages, gave the following results, after having made 136 observations:

The first series of	30	observations	gave	an	aggregate	of	1474 years.
The second " "	30	"	"	"	"	"	1512 "
The third " "	30	"	"	"	"	"	1381 "
The fourth " "	30	"	"	"	"	"	1313 "
The fifth " "	16	"	"	"	"	"	852 "
Total observations, 136.					Total ages 6537:		

mean life 48 years and a fraction: more than 21 years over the mean of the Hebrew cemetery—20¼ over that of the Bayou; 17¼ over that of the Protestant;—27⅓ over that of Lafayette city;—12 over that of all France;—nearly 20 over that of the department of the Seine, (Paris)—and about 22 years beyond the mean of the old Protestant cemetery immediately adjacent. The following table shows the mean age, with the three oldest persons in each series, in this cemetery:

Series.	*Mean Age.*	*Three oldest in each Series.*			*Mean Age of Three Oldest.*
1st. series	49.01	81	80	76	79
2nd. "	50.56	76	76	74	75.33
3rd. "	46.03	85	80	78	81
4th. "	43.76	85	81	72	79.33
5th. "	53.25	92	90	90	90.66

Although the place of nativity is not always mentioned in these inscriptions, yet out of Louisiana the United States furnished but 1, and Ireland but 1, France 19, and Spain, Genoa and St. Domingo, each 4. The prevailing type, in this cemetery, is doubtlessly the creole French.

The old Protestant cemetery, (adjoining the Catholic cemetery on Basin street) long abandoned as a place of burial, gave for 30 inscriptions an aggregate of 797 years, and a mean life of nearly 26½ years—the three oldest, 62, 60, 47.

The new, and by far the most extensive of the Catholic cemeteries, is that in the rear of the former, consisting of four squares, between Robertson and Claiborne streets, the southern portion of which is for the colored race. In this cemetery, especially in its northern portion, French inscriptions preponderate. The white race, in 80 observations, afforded the following results: The first 30 gave an aggregate of 1296, and a mean of 42.2 years—the 3 oldest 89, 77, and 74; the second 30 gave a total of 1415; a mean of 47.16; the 3 oldest 80, 75, 72; the residue 20 observations gave a total of 997; a mean of 49.85 years; the 3 oldest 83, 80, and 75.

The aggregate of these 80 observations amount to 3678 years, giving a mean age of nearly 46. (After counting these 80, one was found aged 110, though I could not count it consistently with my plan, which rejected the principle of selection.) In the middle division of this cemetery, 30 inscriptions gave an average life of nearly 47½ years.

By uniting these divisions of the Catholic cemetery No. 2 with that on Basin street, the observations will amount to 396—the aggregate 18,607 years, and the mean life of the whole, both of the whites and blacks, will be very nearly 47 years.

Of these 396 inscriptions, 49 were over 70;—13 were over 80;—5 over 90.

The black race in this cemetery, buried in a style of magnificence nearly equal to the white, has usually French inscriptions, indicating as the principal places of nativity, Louisiana, St. Domingo, Cuba, Jamaica, and Africa, and gave, in 150 observations, the results which the following table expresses with the utmost brevity: There may be some error in the third series—a discrepancy there seems

to be, inasmuch as this series gives a comparatively diminished total and mean life.

Series Thirty Obs. Each.	*Aggregate Ages Of Each Series.*	*Mean Ages of Each Series.*	*Three Oldest In Each Series.*		
1st. Series,	1594	53.13	100	85	80
2nd. "	1364	45.46	64	80	75
3rd. "	1102	37.4	95	82	70
4th. "	1318	43.93	100	83	79
5th. "	1585	52.0	100	92	90
Total ages of 150,	6,969				
Mean age of 150 persons, - -	43.43 years.				

The united ages of the fifteen oldest persons in this enumeration amount to 1,398 years, affording an average life far beyond "threescore and ten," (the limit indicated by the royal poet of the Hebrews,) namely, 86½ years, with two centenarians for every hundred; or as many of that age as France affords in about a half million. Probably the entire number of vaults and tombs in the African cemetery does not exceed two thousand, nor the dead bodies exceed three thousand. Now, on the supposition that by some strange and incredible chance, the one hundred and fifty inscriptions I took note of, actually exhausted the whole number of centenarians, (which I know was not true,) still the colored centenarians, transcend French centenarians, two hundred and fifty times.

It will be seen that the black race affords, by these tables, 1 in 50, aged 100 years; and if we add 11 years to the lives of the remaining two oldest in the 150 enumerated, the result will be, five centenarians; or 1 in 30; or 8,333 times more than the ratio for all France; or 2,100 more than that of England, by the census of 1841; or if we take the official account of the deaths in France for the 15 years ending on the first of January, 1852, it will be found that 150 inscriptions give for the black race in New Orleans, nearly one fifth as many centenarians as 11,793,-289, or nearly twelve millions, of deaths among the French. But, by an exact calculation, the French bills of mortality, as above mentioned, give one aged one hundred in every 471,731; the black one in fifty.

Each of the remaining cemeteries of New Orleans, as they contain a greater proportion of strangers, will be

found to offer a rapid decrement in the mean life. The new and extensive Protestant cemetery of the Second Municipality gave, in the first 30 observations, as the three oldest, 73, 43, 40; the second 30 gave, for the three oldest, 78, 69, 66. From 110 observations, a mean life was obtained of 30¾ years. The Hebrew cemetery gave, as the three oldest, 74, 63, 62, and an average of 27 years.

The Bayou cemetery, or Potter's Field, not having monumental inscriptions, with few exceptions, proved an unsuitable field for necrological researches. From the rude and frail memorials of the dead, I obtained thirty-five ages; the oldest three were, 55, 52, 45—the mean life of the whole, 27¾ years—a mean nearly twenty years less than that of the old Catholic, and the African cemeteries.

The city of Lafayette, separated from New Orleans by a street only, abounds with German immigrants, who, with the Irish, are in both cities the principal victims of yellow fever. The Lafayette cemetery is more favorable for inhumation in the ground than the New Orleans cemeteries; accordingly, this mode of sepulture is more common in the former. Among 30 ages taken from the vaults of that cemetery, 39 was the oldest, and the mean of the whole was only 20¾ years, which is the minimum of all the cemeteries, being 26 years less than that of the black race in the Catholic cemetery, and nearly two and a half times less than that on Basin street.

The Catholic cemeteries are supposed to reflect the creole life more accurately than the other cemeteries, which are newer, and have been filled with immigrants. The mean life, as deduced from monumental evidence, though not identical with that deduced from the recent mortality of the city, by the Board, is confirmed by the latter; that is to say, the Catholic cemeteries take precedence of the Protestant, and the Protestant of the Potter's Field. Any one acquainted with the different classes of the population would have anticipated these results.

The following is interesting, on the "*Sanitary History of New Orleans:*"

There is not, probably, any considerable city in North or in South America, including the West Indies, whose sanitary history is so favorable as that of New Orleans,

until near the close of the last century. Not long after the foundation of the city, the Parisian press teemed with works on Louisiana, its climate, topography, botany, zoology, and its native Indians. Some of these works were of an official character, having originated in scientific expeditions ordered by the French Government. Charlevoix's work, [3 vols. 4 to.] describes the city 4 years after its foundation in 1718,—animadverts upon its topography, estimates its population in January, 1722, at 200, who lived in huts upon the river's bank, the regular houses not having been as yet constructed. Laval's work on Louisiana was published in 1728. In neither of these works is the salubrity of the climate questioned. Dr. Pratz, in his history, [3 vols. 1758,] maintains that life in Louisiana was not only pleasant but long. La Harpe, the agent of the French Government, sent to explore the boundaries, climate, &c., of Louisiana, arrived at New Orleans in the fall of 1718. In 1724, after having spent five years in Louisiana, chiefly in New Orleans, he returned to France. His journal is minute, but contains no account of fevers, or other epidemics in the colony. He estimates the inhabitants of the city, including the troops, at sixteen hundred—the climate as being temperate—the air as salubrious; [355, 356] The people, he continues, were entirely exempt from the epidemics which desolated other parts of North America. New comers, for the most part, were attacked with a slight fever [*une fivre lente*] which caused debility, but never death; [on ne voit pas de personnes en mourir.] The province, which had a black population of 1,000, was everywhere salubrious, particularly along the sea shore.

Lozieres, in his second voyage to Louisiana, 1794 to 1798, [2 vols., Paris, 1803,] asserts the salubrity of New Orleans, and seems much puzzled to explain it. He concludes, however, that the cause must be sought in the universal use of the Mississippi water; [T. i., 313.]

In a work published in Paris in 1802, edited by Duvallon, founded on a three year's actual residence, Louisiana is described as exempt from epidemic diseases, its fevers were mild, and rarely dangerous; the rate of mortality was small; whites and blacks of both sexes lived long, and were still fresh and vigorous at the age of sixty. The writer gives a flattering account of the physical conform-

ation, fine complexion, and rare beauty of the *dames* creoles. The sanitary condition of the city he maintains as being good, with the exception of the yellow fever. He says that this malady was not proper to the place, and had not been known until within the six or seven years preceding 1802, a period during which it had prevailed nearly every summer, and was attributable to the commercial intercourse with the North Americans, and to the increased heat of the climate incidental to the clearing away the forest, and the exposure of the soil to the sun's rays.

This author asserts that from the end of October to the beginning of July, there is in both town and country but little sickness, and that death but rarely occurs. During the hot season of three years preceding 1803, the mercury arose no higher than from 24° to 26°.; [Reau,] nor did it descend in the winters lower than two degrees below the freezing point.

Robin, in his travels in Louisiana from 1802 to 1806, [3 vols., Paris, 1817,] avers that the country has but few chronic diseases, diarrhea being the most common and fatal. He mentions sore throat as sometimes prevailing among children; also, infantile tetanus, [le malde de machoire,] together with yellow fever, which a few years previously had appeared for the first time in the city, and which he identifies by Father Labat's description, enlarging on its pathology as a disease of the blood, or rather as a rarefaction of that fluid, causing dilatation, tension and compression in persons from the North, whose blood he supposes is too rich and dense. Tropical acclimation, according to him, renders the blood thinner, lighter, and less dilatable.

The celebrated statesman, Count de Vergennes, in a memoir on Louisiana, addressed to his Government during the early days of the American Revolution, says: "I repeat what I have so often said, that Louisiana is, without question, the first country in the world as to mildness of climate, and its happy situation."

The immigrant to New Orleans runs a risk of the yellow fever during the first few, say 3 to 4 years, a great proportion escaping altogether, and a few suffering an attack after a more prolonged residence,—one attack with continuous residence protecting against subsequent at-

tacks. His dangers from epidemic fevers are, therefore, compressed within a few years, while in Northern latitudes, or even beyond the limits of the city, he is, during life, exposed to the risks of epidemic, bilious, remittent, intermittent, congestive, typhus, and typhoid fevers.

The yellow fever is emphatically the strangers' fever; individuals long resident, and natives of the city, being as little liable to take this disease as the vaccinated are to contract small pox.

Independent of emigrants, New Orleans receives within its limits for a few days or months a greater proportion of floating population than any other city, arising from its commercial character, geographical position, easy access by rivers, lakes, and seas, and from its public charity, thus becoming the asylum of foreign paupers passing through or temporarily resident in it. To these may be added sick and destitute boatmen, seamen, ditchers, woodchoppers and raftmen from the valley and swamps of the lower Mississippi, not to name a vast many poor consumptives seeking the benefit of the climate. Besides, New Orleans has been, and continues to be, the recipient of the broken down soldiers, the *debris* of the armies of Generals Taylor and Scott. The unparalleled California emigration contributes in the same way.

It is a problem unsolved by experience, whether a migration of the natives of these hot countries to the icy circle, would not be more fatal than that of the Northerners towards the torrid zone. Would not northern typhus, with pulmonary diseases, transcend in mortality southern remittent and yellow fever?

But in no case can acclimating diseases be received as the precise standard of salubrity or insalubrity for the entire, much less native population.

The sanitary statistics of New Orleans have been derived, in too many instances, from the books of the Charity Hospital, which is virtually a great foreign institution, located in, but not for New Orleans. Thus, in twenty years, ending in 1850, the admissions of patients into that institution [according to Dr. Fenner's valuable Reports] amounted to 123,917, of which number only 1,293 were Louisianians, that is to say, about one in every hundred. But probably not more than half of these were citizens of New Orleans; that is, one in every two hundred. Admit-

ting, what is generally conceded, that the hospital admissions represent from one-fourth to one third of the whole number of sick strangers; but taking the latter ratio as a guide, it follows that 371,751 strangers are to be charged to the sick list of the actual citizens of the town.

The report of the Board of Health of New Orleans, for 1849, [one the least flattering to its sanitary character ever made,] shows that in the Catholic cemetery, for four years, ending in 1844, among 442 deaths there were ten aged more than one hundred years! Now, it requires nearly two and a half millions of people in France to produce ten centenarians,* according to the census, and still more according to the official bills of mortality. The entire department of the Seine [Paris] would have only eight centenarians, provided it had *ten millions of inhabitants*,* which is nearly one-third of the population of the entire Republic. New Orleans, according to this ratio, gives, in its necrological record, one in forty-four aged beyond one hundred years; while, by the census of 1840, there is in the United States but one in 6,157 aged one hundred years. In England and Wales there is but one of this age in every 55,555; in France, one in every 250,000. The centenarians in the Catholic cemetery are, therefore, nearly six thousand times greater [in equal numbers] than in France. Even the Potter's Field, according to the Report, in 8,566 gives nine centenarians, or one in every 951, that is, about 26.3 times more than the French Republic.

The Report asserts that "the average age at death in the Northern cities, [doubtless owing in a great measure to the large mortality in infantile life,] is from nineteen years, nine months, to twenty years, three months, and in some of the cemeteries, where destitute foreigners from the crowded parts of the city of Boston are buried, it is reduced to 13.43. * * * * In the city of New Orleans, the average age at death for the last year was 26.69, and for a series of years, the aggregate of all the cemeteries was 22.63" Is an increased average life to be considered a proof of the insalubrity of our climate, espe-

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*Essai sur la Statistique de la Population Francaise. Par le Comte A. D'Angeville.

cially when that life is twice as great as in some of the cemeteries of Boston? The foreign population of Boston is about equal to the native. Nearly all of the former are Irish. These Irish, in going from their own country to Boston, go to a climate like their own, not to a tropical climate, as in New Orleans—an important consideration.

Now, the Report shows in the Potter's Field, or Bayou Cemetery, [the great Irish necropolis of New Orleans,] that the average life taken for six years, ending in 1846, is nearly twenty-four; that is, nearly one-fifth more than the native and foreign mean life of the most favored Northern cities.

The Report estimates the mortality for 1849 at 9,862, of which number Louisiana and New Orleans furnished less than one in every twelve, and the residue of the United States about one in twenty. Those known to have been foreigners, [3,569,] and those whose places of nativity were not known, that is, 4,985, were probably nearly all foreigners, negroes excepted. The United States, including Louisiana and New Orleans, contributed to the whole number, namely, 9,862, only 1,308. Now, let us give the Report nearly twice as many deaths for the United States, namely, 1,017 more than the number mentioned in the Report, whereby it will appear that foreigners, nevertheless, exceeded Americans between four and five times, or, by the figures of the Report, nearly eight times. Can any other city show a mortality in which *its own share*, including that of the temporary residents of the whole State, is less than one in twelve? Concede to the Report 1,017 deaths of native Americans beyond its own account—admit [what is probably true] that all the centenarians mentioned are natives, and what is the result? The Report gives one aged 130, one aged 110, one aged 105, and twenty aged 100, or twenty-three aged 100 and over; that is, more than one centenarian to every 101, or 2,500 times more than France; or, taking the deaths of Louisiana alone, twenty three centenarians in twenty-nine deaths, or one centenarian to thirty-three deaths among the natives of the city.

Even the cholera passed by the natives of New Orleans to a very great degree, taking the Report as authority. Thus, of 3,171 deaths which took place from that disease in 1849, the natives of the city and State contributed only

106; or 1 in 30 nearly of the whole. Among 783 deaths from yellow fever, the State and city contributed 2, or 1 in 391.5, and among 640 deaths from all other fevers, but 17, or about 1 in 40.

The mortality of 1849, though great, illustrates the mortuary statistics of New Orleans for other years. Dr. Fenner, in his Medical Reports, shows that in 1849 the total number admitted into the Charity Hospital of New Orleans was 15,558—of these 13 634 were from foreign countries; from countries unknown, 142, probably nearly all foreigners, making 13,776 foreigners; from the different States of the Union 1,782 were admitted, leaving, as he shows, only 147 for all Louisiana; that is, one Louisianian for every 10,397 patients born in other climates.

Dr. Fenner shows that of the whole number admitted into the Charity Hospital in 1849, 17½ per cent. died, making 2,739 deaths. This ratio will give Louisiana about 27 deaths—but several reasons could be adduced rendering it probable that Louisiana did not furnish an average mortality half as great in the 100 as foreigners —say 12 in 147. Here, then, are 12 deaths in 2,727, or if figures be taken without explanation, 147 sick Louisianians furnished, in 1849, no fewer than 2,739 deaths.

Dr. Fenner gives the statistics of the Charity Hospital for twenty years, ending in 1850; admissions, 123,917; of these 1,283 were Louisianians, a little over one in a hundred. Adopting the usual estimate, namely, that the other hospitals and the private cases in the city exceed those of the Charity Hospital in the ratio of two to one, then the last twenty years gave 321,917 cases of sickness, of which 3,879 were from Louisiana—in round numbers, 3,000 to 318,000.

Of 1,800 who died of yellow fever in New Orleans in 1841, the State of Louisiana and its cities contributed but eight, or 1 in 225; the nine most Southern States, including Texas, only twenty-five, or one in seventy-two; and the entire black race only three, or one in six hundred.

The hospitals of Paris are for Frenchmen; the Charity Hospital of New Orleans, the only one in the State of Louisiana, is virtually for foreigners. In Paris one-sixth of the whole population die in the public hospitals.* In

*Dupin Alison.

a population of 70,000, or one in every ten, pass annually through the public hospitals,* while in the Charity Hospital of New Orlhans, the whole State, in twelve years, ending in 1842, supplied, among 59,021 patients, only 556, or 45 annually—that is, one to ,731—a ratio 783 times less than that of Paris. In 1842, among 4,404 patients in the Charity Hospital, Louisiana furnished only 34, not one in ten thousand of the inhabitants, or one thousand times less than Paris. In Dublin, in 1827, more than one in four entered the fever hospitals of that city, namely, 60,000†—a ratio twenty-five thousand times above that of Louisiana.

Art. VI.—*The East Tennessee Record of Medicine and Surgery.* Edited by Frank A. Ramsey, A. M., M. D. Knoxville: 1862.

Dr. Ramsey, the editor, has shown himself worthy of success in this first number of his journal. It bears the most unquestionable marks of industry and ardent professional zeal. He has our best wishes—we wish him all he expects or hopes from his enterprise, and would not add a word to damp his praiseworthy ardor. A large part of this number is from the pen of the editor. His report on the diseases of East Tennessee is an elaborate paper, and his editorials are spirited and manly.

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*Ib. †Alison.

SELECTIONS

FROM

FOREIGN AND HOME MEDICAL JOURNALS.

Cases treated with Veratrum Viride. By Dr. D. C. O'Keeffe. (Reported by J. S. Clements, of Penfield, Ga.)

Case I. Nov. 3, 1851.—Mrs. ——, aged 21, was delivered of her first child one week ago; progressed satisfactorily until above date. Condition at that time: Skin hot and dry; tongue furred, white on centre, red at tip and edges; mouth dry and lips crusted; slight headache; pain in back and bowels; least pressure on abdomen causes pain; pulse 115, small and hard; dysuria for last twenty-four hours; has had two stools during same period from castor oil and spts. turpentine she had taken. *Diagnosis*—Incipient puerperal fever. *Prescription:* Pepper poultice to abdomen, warm cloths to vulva, spts. nitre in parsley tea every two hours, until dysuria is relieved.

5 o'clock, P. M. Has urinated tolerably freely since morning, less pain in bowels, pulse 120; other symptoms the same. *Prescription;* Eight drops tinct. veratrum viride every three hours until pulse is reduced.

8th—9 o'clock, A. M. Took but two doses of the veratrum viride, before nausea was induced, and lasted two to three hours. Simultaneously with the induction of nausea, perspiration set in, the pulse was lessened in frequency, and continued so all night. Present condition—Pulse 100, skin cool, tongue less red, feels but little pain and sleeps

better, except during existence of nausea, than she had done in several nights. Took a dose of oil and turpentine at 1 o'clock this morning, which has not operated yet; feels nausea occasionally.

9 o'clock, P. M. One stool; feels better, nausea occasionally all day; pulse 85; has taken none of the veratrum viride since last night. Ordered 10 gtt. tr. veratrum viride every three hours, till nausea occurs, if fever returns. Has passed urine tolerably freely to-day.

8th. Has had no fever of consequence since last date, and therefore needed no medical attention.

REMARKS.—This case would, in all probability, have terminated in puerperal fever, of which it presented the essential characters, but for the timely administration of hellebore. The febrile action could not have been owing to the dysuria and consequent distention of the bladder, for after these symptoms were relieved, the pulse numbered 120; neither could it be fairly attributed to want of action from the bowels, for they had been moved twice the day the first note was taken. She had had her "milk fever" three or four days before the date first noted, and got on well during the interim; the lochial discharge was normal, and the untoward features were attributed by the family to "a cold she had taken." It is reasonable, therefore, to infer that it would have run its course, as a case of puerperal fever, had not the potent agency of the veratrum viride curtailed its progress. This is the first recorded case of puerperal fever treated by the American hellebore, and the sanguine expectations of its worthy pioneer, Dr. Norwood, have been fully answered.

Case II. Nov. 8th, 1851.—Eliza, a negro woman, aged 25, strong and vigorous constitution, was taken with pneumonia of right lung on the 4th; was seen and treated by Dr. A. A. Bell until the 8th, after the usual manner. Calomel, tart. antimony, ipecac, Dov. powder and blisters, constituted the treatment. He had used the tinct. of veratrum viride freely for two days, without producing any perceptible effect whatever, in addition to the remedies above enumerated. The patient's condition at above date was as follows: Skin warm and moist, from ipecac and tart. antimony she had been taking freely all day; pulse 120–130, small, compressible under influence of tartar-emetic; bowels disposed to looseness, and tender to the

touch. At 5 o'clock, P. M., she took 10 gtt. tinct. veratrum viride to control the circulation, which had not been influenced in the least by the calomel and tartar-emetic which she had been taking for twenty-four hours.

7 o'clock, P. M. Pulse the same; still perspiring—15 gtt. veratrum viride. 8 o'clock, P. M. Nausea and profuse perspiration; griping in bowels, which was followed by a copious watery operation; pulse 110—took 60 gtt. tinct. opii. to check bowels. 9 o'clock, P. M. Nausea and perspiration the same, bowels easy, feels drowsy, pulse 100, intermittent. 12 o'clock at night. Nausea and perspiration, pulse 100, not intermittent—took 10 gtt. veratrum viride.

9th—10 o'clock, A. M. One operation since last note, followed by 30 gtt. tr. opii; still perspires; skin cool; pulse 100, not intermittent; no pain; feels drowsy. Ordered, 10 gtt. veratrum viride every three hours while the pulse numbers 100—should it fall before that, to be given less frequently. Convalescence commenced at above date.

Remarks.—This case Dr. O'Keeffe saw in consultation with Dr. Bell, who had judiciously treated it with the usual remedies. He had even given the hellebore a fair and impartial trial for two successive days; but it failed—signally failed. The present case was the second in which the incomparable remedy, hellebore, failed in Dr. B.'s hands to produce any effect whatever, and he was on the eve of condemning it as an insignificant puff, when a different preparation proved to him satisfactorily that his was an inferior article—was inert. Should this disappointment happen to others, they would do well to pause, and consider the reliability and intelligence of their druggist. Dr. B. obtained his tinct. of veratrum viride from his druggist, while the preparation that fulfilled its mission—told the heart's arteries "so fast shalt thou beat and no faster," was prepared by a physician, in his own office, in the proportion of two ounces to the pint of alcohol.

It is difficult to say, with unerring certainty, what agency the veratrum had in bringing on a favorable crisis in this case, or how it would have terminated under the usual treatment. She took the first dose of hellebore at 5 o'clock, P. M., the tongue being moist and skin warm, but moist also; notwithstanding these favorable effects

from the calomel and tart. emetic, the pulse was not reduced any. Two doses of the hellebore accomplished what several doses of the tart. antimony had failed to do. A crisis might have taken place without the veratrum, and its occurrenee, after its exhibition, may have been a coincidence instead of an effect; but from the infallible certainty with which it reduces the action of the heart and arteries, I think it not unreasonable to attribute the favorable change, in the present case, to its potency.

Case III. Mr. B., aged 45, complained of cold chills and acute pain in left side on 12th of November. Poultices, baths, diaphoretics and expectorants, failing to relieve him, he was bled next day 20 oz., the pulse being 100, full and strong. The v. s. and perspiration that followed relieved the pleuritic pain, partially, for a time, but it returned next day with some severity. A blister was applied to the affected side, which removed the pain; took 15 grs. of calomel, twice, in divided doses, which produced three dark operations. During this time, the tongue was covered on the middle with a whitish fur, natural at edges; the mouth dry, clammy, and exceedingly unpleasant, required cleansing frequently in the day; the pulse during the whole time 90–100.

8th day of illness. Skin hot, harsh and dry; tongue furred, clammy and sticking to roof of mouth; taste unnatural, very feeble and extremely restless; pain no where, pulse 90 to 100, variable, feeble and hard. Took several doses of diaphoretic preparations, until altering the condition of the skin, which was so hot and dry that he said he felt like he should "burn up." At 10½ o'clock, A. M., took 10 gtt. veratrum viride, the pulse being 100. At 11 o'clock, the skin was warmer and disposed to become moist; pulse stronger and more frequent, 114; no nausea. 1 o'clock, P. M. Skin moist, generally; large drops of sweat on face, drowsy, no nausea; pulse 114. 3 o'clock. Vomited considerable quantities of bilious matter several times. After he had vomited twice, skin became cool and dry, and the pulse fell to 100; and after he had vomited two or three times more, the pulse fell to 80, was small and weak. 5 o'clock. The vomiting having continued, and feeling griping pain in lower bowels, he took two tea-spoonfuls of paregoric, which checked the vomiting and griping. Expectoration, of which

there was little or none before nausea, became profuse after it, and relieved the lungs very much. He took no more of the hellebore, and his pulse fell to 60, and continued so for several days, when convalescence commenced, and progressed satisfactorily to recovery.

Remarks.—Here is a case in which the usual diaphoretic remedies had been used freely and faithfully, without effecting the desired result; whereas 10 gtt. of the veratrum acted like a charm. The hellebore was not given in this instance to diminish the frequency of the pulse—for that was not at all imperative—but to act simply as a diaphoretic, and to remove the great heat of which the patient complained so much. It is proper to note that, before nausea set in, and after taking the veratrum, the temperature of the surface was heightened, and the pulse accelerated from 100 to 114 in the minute—a result that ensued only in the present instance.

Without further notice of this case, which was considered one of typhus fever, I propose to give, in detail, the notes of the case of pneumonia in which the hellebore was administered as a principal remedy during the whole progress of the disease.

Case IV. Nov. 23d, 1851, 9 o'clock, P. M. A negro girl, aged 20, of strong constitution, in seventh month of pregnancy, felt pain (slight) for the first time, in her left side, this morning, but attended to her usual duties until three hours before she was prescribed for. Condition: acute pain in her left side; cough hard, painful and frequent; skin hot and dry; tongue clean; pulse 120, and strong. *Diagnosis*—Pleuro-pneumonia.

Prescription: Venesection 1 quart; poultice to left side, and 10 gtt. tinct. veratrum viride. 12 o'clock. The same; 15 gtt. veratrum viride. 3 o'clock, A. M. The same; 20 gtt. veratrum viride.

24th, second day, 7 o'clock, A. M. Skin a little cool, vomited some since last note, perspired some during nausea; other symptoms the same—23 gtt. veratrum viride. 8 o'clock, A. M. Nausea and vomiting several times, skin natural, pain almost relieved; pulse 80, small and weak; deathly sick—Ginger tea to relieve nausea, and poultice to chest. 6 o'clock, P. M. Took the veratrum every three hours since last note; skin warm and dry; one stool; pain in side returned; pulse 112—15 gtt. ver-

atrum viride. 8 o'clock. Vomited three times; skin moist; pain in side the same; pulse 80. ℞. Calomel, Dov. powder, *aa* 5 grs.; ipecac, 3 grs.; to be taken at once —cups over seat of pain, and poultice.

25th—9 o'clock, A. M. One stool; emesis several times in night; skin harsh and dry, but natural in temperature; cough hard and painful; pulse 120—15 gtt. veratrum viride every three hours, poultice to chest, and expectorant to relieve cough. 7 o'clock, P. M. Took three 15 gtt. doses of the hellebore, after the last of which she vomited three times; no stool; skin cool; pulse 80; respiration rapid, 50 in the minute. 11 o'clock, P. M. Took no medicine since last note; respiration rapid, embarrassed and difficult; skin cool, but harsh and dry; very restless, pulse 120, hard and constricted—15 gtt. veratrum viride in 50 gtt. tr. opii., to produce sleep.

26th—1½ o'clock, A. M. Took since last note 15 gtt. veratrum viride: respiration and pulse the same; skin warm and moist, is in a copious perspiration; no nausea —20 gtt. veratrum. 8 o'clock, A. M. Respiration and pulse the same; skin dry and warm; no stool; pulse 120 20 gtt. veratrum viride. 9 o'clock, A. M. Was sitting up when last note was made, which perhaps accelerated the pulse somewhat; skin a little moist and warm; pulse 100, lessened 20 beats without any nausea or vomiting; "felt worms creeping up her throat," attended with a flow of saliva and a desire to heave. (Complained of this sensation of worms in the throat since she has been taking the hellebore, and the same feeling was described by another patient who was taking the veratrum at the same time.) 15 gtt. veratrum viride every three hours, and intermediately a powder of calomel, Dover's powder and ipecac; blister to left side. 7½ o'clock, P. M. Took the above; no stool; after second dose of veratrum, vomited freely; skin warm; perspired none; blister well drawn; cough loose; pulse 90—continued veratrum every three hours, and gave injection to relieve bowels.

27th—9 o'clock, A. M. Two stools; emesis several times; cough very troublesome, causing vomiting; respiration very rapid, 50-60; pulse 100—15 gtt. veratrum viride, and same powders intermediately; blister dressed.

28th—8 o'clock, A. M. Followed prescription; two stools; constant nausea and vomiting; cough hacking

and troublesome; tongue slightly furred; respiration same; pulse 100—continued hellebore and powders. Night visit: No improvement; felt labor pains since last note. *Prescription:* Discontinued hellebore; blisters to legs and right side; quinine, Dov. powder and ipecac, every three hours, and tart. antimony alternately.

29th—9 o'clock, A. M. Miscarried: pulse very frequent; getting worse—same treatment continued; brandy and quinine if pulse should sink. Night visit: Dead.

Remarks.—This case of pneumonia tested the hellebore to its utmost capacity, and brings home to our mind the very reasonable conviction that it will not prove infallible in the treatment of pneumonia. On reviewing these notes, it will be seen that the heart and arteries seldom failed to respond to the sedative influence of the veratrum, while the respiration was not affected by it in the least: it was a singular phenomenon to observe the respiration as frequent as 50 or 60, the skin cool and moist and the pulse 80. Hence, in this case, at least, it did control the circulation, but did not affect the respiration or inflammation. There is every reason to believe that the pneumonia inflammation received no check whatever, notwithstanding the circumstance that the patient was kept fully and constantly under the influence of the hellebore. But it is a question of reasonable doubt, whether any course of treatment would have averted the inevitable doom that awaited this patient in view of her advanced state of pregnancy. It is the duty of physicians who submit this agent to the test of clinical experience, to watch carefully its effects, and report them for the benefit of the profession: the remedy is in a state of probation preparatory to its admittance into the sanctum of practice, and nothing should be withheld that may add to its value or detract from its merits. In view of the severity and well marked character of the diseases in which it is most likely to be used, its effects can be early determined, either as positive or negative: it will control the bounding pulse, or it will not; there is no half-way ground—no room for speculative propensities. In a type of typhoid fever, in which pulmonic symptoms predominated, Dr. O'K. assures us it had the happiest effects in curtailing the duration of the fever and expediting convalescence. But in cases in which inflammation of the intestinal mucous membrane

exist, its exhibition may prove somewhat questionable. It may be said, that as far as the cases go, the claims of the American hellebore to a potent remedy are founded on no fictitious representations: they rest on the indisputable facts of rigid experience; and we have little doubt that when it shall have passed through an extensive trial, the conviction of its importance will become universal, and in the language of Dr. Norwood, a new era in the treatment of disease will be the consequence.—*Southern Med. & Surg. Journal.*

Veratrum Viride, as a Poison. By E. M. Pendleton, M. D.—Having recently had the opportunity of trying the Tinc. of Veratrum Viride, (Dr. Norwood's preparation, purchased from himself, personally,) I feel it my duty to give a brief account of its therapeutical effects, as I would gladly have done, had the impressions made upon my mind been of a more favorable character. Ever loth to try new and potent remedies, as I abominate *experimentalism* in medicine, where danger may be apprehended, I had thus far resisted the temptation of using the article in question, notwithstanding the high character it had attained in the hands of Dr. Norwood and others, as has been made known in the Medical Journals. On the day in question, however, Dr. Norwood called at my office, and presented such a "cloud of witnesses," in the shape of letters received from divers physicians, some of whom I knew, that I was induced to take an ounce of his preparation, promising to give him, or some of the journals, the result of my experiments.

At noon of the same day, I called to see a patient laboring under Catarrhal Fever, whom I had bled in the morning to syncope, having had a remarkably hard and intractable pulse. She had been sick about a week, having the usual symptoms of Catarrhal or Inflammatory Fever—soreness in the muscles, pain in the back and head, red, watery eyes, and cough, with mucous expectoration. I found her pulse had rallied again, being very hard and bounding, and going at the rate of 133 beats to the minute. A first rate case, thought I, for the Veratrum Viride. Accordingly, I prescribed Dr. Norwood's minimum dose,

eight drops, pouring it out with my own hands, leaving directions for her to take another portion in three hours, the time designated by the Doctor.

About six, P. M., two hours after she had taken the last dose, I was sent for in great haste to see my patient, who was thought to be *moribund.* I was at her bed-side in a short time, and found her laboring under excruciating pain in the precordia, with a sense of suffocation and sinking at the stomach, cramps throughout the muscular system, which assumed a periodical character, a preturnatural coldness of the whole system, with clammy sudor. Her eyes were wild, pupils dilated, countenance expressive of great pain and apprehension, which were evidenced by her plaintive cries for help. She sometimes spoke incoherently, showing a wandering mind, and a state bordering on the destruction of nervous vitality. Her pulse was scarcely perceptible and numbered 120 to the minute. I of course felt great alarm, and set to work to keep up the sinking powers, by warm mustard poultices and frictions externally, with wine and brandy internally. Notwithstanding all my efforts, the pulse became entirely imperceptible, and all the symptoms above described assumed a more alarming aspect, in connection with copious watery evacuations *per anum,* I ordered starch and laudanum injections, and persisted in the stimulants, etc., until about 8, P. M., two hours after my arrival, when her pulse again became perceptible, which was so weak that it reminded me more of the delicate thumping of the fetal heart on the tympanum in a stethoscopic examination four months after conception, than any thing else What was remarkable, however, it was only 84 beats to the minute, showing at once the paternity of all this suffering and danger, as well as the potency of the drug administered, "for evil, however, rather than good." All the other unpleasant and deathly symptoms began to give way, as the heart which had been so suddenly crushed in its nervous energies, resumed its wonted sway. None but the truly conscientious physician, who holds himself accountable, not merely at the bar of public opinion, but at the bar of God, for all his professional, as well as other deeds, can appreciate my feelings at this termination of the case.

I found my patient, early the next morning, greatly re-

lieved, pulse 96, full and strong. It continued to increase in frequency and strength until it reached nearly the condition it sustained prior to the administration of the Veratrum Viride. I of course resorted to another and safer class of remedies for its subduction, which resulted in a favorable termination of the case.

I have thus, in all candor, presented the results of my experience with a drug; whose sedative and poisonous qualities I regard but little if any inferior to the Prussic Acid, and decidedly more potent than the Digitalis. It is true only one case is presented, but one so clear and well marked, that none can attribute the result to other causes than the drug itself. Whatever effect the relation of this case may have upon the uninitiated, I must confess upon me it has had the effect to make me abandon the remedy, at least for the present. Bolder practitioners may, in this, as in other instances, educe good from evil, and free the remedy from some of its more poisonous principles; but our present knowledge of it will not warrant an indiscriminate use of it, without rendering us culpable of a violation of some of the plain laws of humanity and professional propriety, not to say of religion. —*Charleston Med. Journal.*

The Itch Cured in Two Hours. By Dr. Hardy, (London Lancet,) Dr. Bazin, physician of the Hospital Saint Louis of Paris, introduced, not long ago, a notable improvement in the treatment of the itch, since he succeeded in curing the disease in *two days* by general frictions with the sulphur ointment. Dr. Hardy, who has succeeded Dr. Bazin in the Scabies wards of the same hospital, has, however, considerably curtailed this already short time; he cures his patients in *two hours.* The method is described as follows: Patients are no longer admitted into the house for the treatment of the itch, as two hours suffice to render contagion impossible and the recovery almost certain. The patient is put into a warm bath, and rubbed for an hour in yellow soap; he then passes into a clean bath, where he continues to cleanse his skin for another hour. After leaving this bath, he is taken to a particular room fitted for the purpose, and, with the aid

of one of his fellow-sufferers, he is rubbed all over for half an hour with the following ointment:—Axunge eight parts, flowers of sulphur two parts, carbonate of potash one part. After this friction, the patient is examined and sent away cured, though sometimes pretty numerous vesicles on the hands and elsewhere remain unaltered. Dr. Hardy states that out of one hundred cases, he has only had two or three relapses. The number of itch patients has considerably diminished, as none are now turned away for want of room; and the disease has thus spread with much less rapidity.—*Ibid.*

Treatment of Obstinate Ulcers by the Internal Use of Tincture of Cantharides.—By J. Tart.—(Prov Med. and Surg. Jour.) In a case of extensive ulceration in a broken constitution, after the failure of various plans of treatment, Mr. Tart gave ten drops of tincture of cantharides three times a day, with marked benefit. In three days from the commencement, the sores began to contract, healthy lymph appeared round the edges, and vivid granulations started up. In a fortnight, the ulcers were quite healed. On this case the author remarks:

"Such was the progress and issue of a case that had baffled every previous treatment employed. It affords one of many examples I could bring forward of the great utility of cantharides in indolent ulceration, dependent either upon atony of the engaged parts, or system generally.

"In 1845, while resident in Burmah, my attention was directed to the treatment of the ulcers met with in that country, and which had long been found difficult to heal by different medical gentlemen stationed on that coast. I drew up a paper, exhibiting the appearances presented by the different ulcers, and the states of constitutional derangement with which they were identified, and in which I had employed the tincture of cantharides with marked success. The paper alluded to, backed by several cases treated by different medical friends, was forwarded to the Madras Medical Board, who ordered it to be circulated throughout the medical service of the Madras army."

A few extracts from the paper here referred to will show the characters of the ulcers where I found the tincture of cantharides useful:

1st. "Where the granulations were exuberant, but pale, weak and flabby.

2d. "Where there was deficiency, or total absence of granulations, the ulcers being deep and scoped out, with raised and indurated edges.

3d. "Where the granulations were not defective, but cicatrizing irregularly, sometimes in the centre, at other times on one side, the lymph which was thrown out and organized one day being absorbed the next.

"It was further remarked that their indolent character was to be referred to morbid states of the system, varying from little perceptible deviation from health to the different grades of anemia. It was difficult at first to assign the cause of this indisposition to heal, in sores which presented themselves in subjects where the general health was little impaired, and this was increased on finding that they did not yield to the exhibition of remedies known to exercise a beneficial influence upon such ulcers. It was from observing the ineffective attempts at reparation, which I occasionally witnessed in the different cases that came before me, that suggested the belief of the primary derangement to be owing to deranged circulation of the affected part, and the blood being deficient of, or not elaborating, plastic lymph of sufficient quantity or quality necessary for the healthy granulating process.—*Ibid.*

On the Use of Full Doses of Opium in Continued Fevers. By Dr. Haycraft.—(London Lancet.) Dr. Haycraft considers that the administrntion of opium, in the latter stages of continued fever, is a practice which has fallen into undeserved disuse, which, he remarks, is the more unaccountable, inasmuch as the usual effect of fever is to deprive the patient of sleep. He argues that, if any one were to be deprived of sleep for ten, twelve or fifteen days, he would be, by that time, in a state somewhat similar to that of the exhaustion of fever.

"By what train of reasoning (he asks) can we come to the conclusion that sleep is less necessary in disease than

in health? That the occurrence of sleep is highly salutary in fever requires for proof (Dr. Haycraft adds) only the concurrent testimony of all observers, provided that the sleep be not of the comatose kind. Even the nurses of our public institutions will frequently form a favorable and correct prognosis, when they say, in hospital phrase, "the patient is sleeping an end," and the event seldom falsifies the prediction."

Our author examines into and comments on the opinions of Sydenham, Van Swieten, Boerhaave, Friend, Richter, Cullen, Mason Good, Potter, Armstrong, etc., as to the employment of opium in fever. He remarks that both Sydenham and Van Swieten mention delirium as the symptom which indicates its use; but that, from most of the authors above named "placing this drug at the *end* of their lists, it might fairly be implied that it is only to be given at the termination of the disease—certainly not at its commencement."

The presence of inflammation is far from contra-indicating the use of opium in fever. Drs. Stokes and Graves have shown that, in peritonitis, the inflammation may be subdued by the use of opium alone, even when the intestine has been perforated.

Some of the conclusions of Dr. Stokes, as quoted by Dr. Haycraft, are, that where antiphlogistic measures are inadmissible, the administration of opium in large doses may be made with benefit, and that its effect is then to raise the vital power. Our author believes that this effect may be "partly due to the production of sleep, which, however induced, must act beneficially on depressed vitality; that it should subdue irritability may, I think, (says Dr. Haycraft,) be fairly attributed to the same operation."

Dr. Haycraft lays great stress on the injunction, that the remedy should be administered in *full* doses. A small dose, as he avers, will only irritate, and therefore increase restlessness and delirium; and the later opium is used, in the progress of the fever, the more decided, he considers, will be its beneficial effects; if given on the fourteenth day from the attack, it will, he says, usually produce a most decided critical sleep: "the fever is actually cut short." Earlier than the eighth day, he states that he has, from the nature of his practice, not had opportunities of

giving it; but he would not hesitate to employ it after the sixth day, provided *restlessness*, *sleeplessness*, or *delirium* were present. This treatment of fever by opium is not, however, he cautions us, to supersede other remedies, which may be specially required to combat concurrent symptoms—wine, brandy, diffusible stimulents when exhaustion takes place, sulphuric acid in large diluted doses, when colliquative sweats exist, or a scruple of calomel, with or without opium, when the congestion of collapse occurs in the brain, lungs or abdomen. He does not consider opium, in suitable doses, a remedy in anywise contra-indicated for children suffering from fever.

Dr. Haycraft cites several cases, which have occurred in his practice, illustrative of his views. The following are the conclusions at which he has arrived:

"1st. That opium may be safely given after the sixth or eighth day of a continued fever.

"2d. That it will be most beneficially prescribed when restlessness, insomnolentia, delirium or sinking takes place.

"3d. That a drachm of the tincture of opium, or an equivalent quantity of any other preparation of opium, is not too large a quantity for an adult.

"4th. That opium, being an antiphlogistic remedy, is not contra-indicated by inflammation.

"5th. That opium succeeds best after purgatives—that if these have been neglected it should be joined with a purgative; if the symptoms urgently require its use, it may be combined with diuretics.

"6th. That opium, given in the latter stages of fever, in sufficient doses, raises the vital powers, abates irrita-

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Anesthesia.—The British and Foreign Medico-Chirurgical Review, for January, gives the following summary of the deaths from anesthesia, in the order of the occurrence of the cases. The list does not include several cases which have occurred within the last eighteen months, nor, as the writer remarks, "at least five well-authenticated deaths from needless and careless use of chloroform in

this country (England) alone, or of numerous cases where dangerous symptoms have been observed, or death obscurely traced:

"1. Hannah Greener, aged fifteen, was greatly afraid of respiring the chloroform,—only about two drachms were used,—insensibility was produced in half a minute, when the removal of a great toe-nail was commenced; death occurred in about two minutes.

2. Case at Cincinnati, aged thirty-five, apparently in good health; was chloroformed for about a minute for extraction of a tooth; death occurred in from five to ten minutes.

3. Patrick Coyle, chloroformed for fistula; he inhaled for about a minute, and almost instantly expired.*

4. Mdlle. Stock, Boulogne, aged thirty, subject to palpitation, and chlorotic; inhaled about fifteen or twenty drops; operation, opening of an abscess in hip; death almost instantaneous.

5. Daniel Schlyg, aged twenty-four, had a thigh fractured by a ball during the days of June, in Paris, and was in a state of profound depression; he inhaled the chloroform for about three minutes, amputation at the hip-joint was performed, and death occurred in three quarters of an hour.

6. Walter Badger, aged twenty-three, had heart and liver disease; he inhaled chloroform for about a minute, previous to the extraction of a tooth; the operator, Mr. Robinson, of London, was absent for less than a minute to seek more chloroform, and found his patient dead on his return. The inhalation took place from an apparatus.

7. A young woman of Hyderabad was chloroformed for amputation of middle finger of left hand; about a drachm of chloroform was used; death almost instantaneous.

8. John Griffith (Warren) had chancres and hemorrhoids; inhaled about three drachms, and died in about ten minutes, during the excision of the hemorrhoids.

9. Abbey Pennock (Warren) inhaled about three drachms in two applications, to relieve the pain of toothache, and died almost immediately after the second application.

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*The case of Coyle is given by Dr. Warren alone.

tion, subdues inflammation, and most frequently induces a sleep, which becomes truly the crisis of the disease."—*Ibid.*

10. Example by M. Malgaigne. A man, one of the wounded of the three days of June, had the humerus broken by a ball, and was a good deal weakened by hemorrhage and gangrene of the wound; was chloroformed, and the humerus disarticulated; new inhalations were taken during the search after the ball, and he died during the last incision.*

11. Charles Denoyers, aged twenty-two, was affected with white swellings of the left wrist, and chloroformed at the Hotel Dieu, of Lyons, for five minutes before and during cauterization of the tumours; death took place shortly after the commencement of the operation.

12. Case of M. Roux; removal of a scirrhous breast; death before quitting the amphitheatre.

13. Case described by M. Guérin, as having taken place at the Bicêtre. A man affected with a lesion of the thigh was chloroformed for amputation at the hip-joint; death took place before the end of the operation.

14. Case at Govan; a young man chloroformed for removal of a great toe-nail; death almost immediate.

15. Case of M. Barrier, of Lyons; a young man, named Verrier, aged seventeen, inhaled from six to eight *grammes* of chloroform for about six minutes, for an amputation of the finger, and died in about half a minute afterwards.

16. At the Hospital of Madrid, (Bouisson,) a child of twelve years being chloroformed for an amputation of the leg, was seized with a tetanic spasm, and died in a minute and a half.

17. By M. de Confevron, of Langres. Madame Labrune, aged thirty-three, of a nervous temperament, was chloroformed for the extraction of a tooth; almost instant death.

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*Dr. Warren gives 10 fatal cases, but inserts the cases which we have omitted for the reasons above given. This last case is our 9th; and our 11th is the 7th of M. Bouisson, who, like us, excludes suicidal cases, and such like. He gives 15 cases; his last is our 17th.

18. Mr. Solly's case; a man, aged forty-eight, apparently in perfect health, inhaled rather more than a drachm of chloroform from an inhaler for about three minutes; then a toe-nail was removed; and death took place in about six or seven minutes from the beginning.

19. Case at Leeds, Robert Mitchell; chloroform applied during an attack of delirium tremens by Mr. Teale; death about an hour afterwards. (Hardly a clear case.)

20. Case at Shrewsbury; a girl named Jones; only a small quantity of chloroform was given before proposed extirpation of the eyeball; almost instant death, as if from apoplexy.

21. Case at Berlin; a young lady died during the extraction of a tooth, from the alleged effects of about half a drachm of chloroform.

22. Case at Guy's Hospital, referred to in 'Med. Gaz.' for June, 1850.

23. Aschendorf's case; a child of one year old operated on for a nævus under the influence of chloroform; only about nine drops were used; death on removal from the table.—*British & Foreign Medico-Chirurgical Review.*

On the Action of the Ergot of Rye, &c.—Dr. Arnal, in the *Memoirs of the French Academy of Medicine*, has some interesting observations on this subject, which we find quoted in the Brit. and For. Med. Chir. Review. As the result of extensive trials, he states that the *aqueous extract of the Secale Cornutum* possesses great hemostatic powers in internal hemorrhages. From numerous trials on poultry as well as the human subject, with every variety of dose and preparation, he comes to the following conclusions:

1. The ergot of rye contains a poisonous principle, productive of death, but by no means so energetic as usually represented.—2. Given in the entire grain it acts much less energetically than when powdered.—3. Recent ergot does not act more efficiently than older; but, on the contrary, this last is sometimes the most active of the two.

In order to produce a *summum* of the effect, it is necessary for it to undergo, in the vessels in which it is kept, a peculiar change, which softens it, and imparts to it an odour *sui generis.* Thus it should not be ordered to be powdered just before using.—4. Much greater effect is produced by a certain quantity, in fractional doses, than when given only at twice, probably because less escapes the influence of the digestive organs; one of the effects of divided doses, is to produce a loss of feathers; but in all his numerous experiments, both with large and small doses, Dr. Arnal has never met with anything analogous to the dry gangrene, said to be produced by ergotism in man; but which, seeing that ergot exerts a fluidifying effect upon the blood, he is disposed to attribute to other causes. —5. The ethereal oil of ergot has not proved fatal in his experiments as it did in those of M. Bonjean, and he attributes the issue of these latter to the fluid having entered the air-passages, when it proves rapidly fatal.—6. The watery extract does not contain poisonous matter, or it does so in such small proportions as to prove injurious only after prolonged use. The toxical principle thus insoluble in ether or water, is found in the residue, which kills animals just as the ergot does.—7. The ergot, however given, is very slow of digestion; and when given in excess, it produces lesions of the digestive organs. Some of these are found on post-mortem examination to resemble precisely those observed in typhoid fever, and the author exhibits a parallel of the symptoms of typhoid and poisoning by ergot.—8. The ergot modifies the composition of the blood, rendering it more diffluent; and if exhibited long enough in divided doses, it will induce all the symptoms of scorbutus. Nutrition especially suffers from its deleterious action, as is seen by the rapid emaciation that takes place in the animals to which it is given. The aqueous extract exerts a much less modifying power upon the composition of the blood, than do the other preparations.—9. The ergot, in experiments made upon man, reduces the pulse by several beats for some hours; but even by repeated doses, Dr. Arnal has never known these reduced lower than forty-eight, even in the aged.—10. The beneficial effect which ergot exerts upon uterine hemorrhage, has led many to believe that its action is elec-

tive, as regards the uterus; but in thirty cases of other internal hemorrhages, in which the *aqueous extract* has been administered by the author, a cure has been effected, or, when the presence of organic disease prevented this, amelioration has been procured. It is, however, not so applicable in all forms of hemorrhage as in uterine. It is rare for active, idiopathic hemorrhage to resist its action for more than twenty-four or forty-eight hours; but when this has become passive, the remedy may even prove mischievous if it be continued too long, or the dose be too large. It is also inefficacious in subjects originally feeble, or exhausted by protracted disease. Even in subjects of good constitution, when given too long in large doses, it may produce bleeding of the gums, and an injurious depression of the circulation. In hemorrhage symptomatic of organic lesion, the ergot acts as a hemostatic, but cannot prevent the return of the bleeding. Yet in the case of hemoptysis, dependent upon tubercle, it may act beneficially, not only by suspending or moderating the *molimen hemorrhagicum*, but also by moderating the inflammatory action of the portion of lung surrounding the tubercular deposit. In the same way, it has proved of constant service in acute bronchitis; and in pneumonia it has rapidly suppressed bloody expectoration, and moderated other symptoms. So well does the author think of it in this point of view, that when the patient's strength requires husbanding, and the pneumonia is not too extensive, he recommends commencing the treatment with the ergot, which, by its deoxidizing agency on the blood and retarding power over the heart's action, is an antiphlogistic, *par excellence;* the debilitating effects which attend other means being not produced by it, or if they should present themselves, ceasing on the discontinuance of the remedy. M. Arnal believes that the experiments of arresting traumatic hemorrhage by the local application of the extract, so favorably reported on by M. Bonjean, require repetition and extension to larger vessels.—11. Ergot in its native state is more active in its operation, but its watery extract is less dangerous.—12. M. Arnal takes the present opportunity of confirming the favorable accounts he formerly gave of the utility of the extract in *chronic engorgements of the uterus.* Some of these cases,

however, require a prolonged perseverance in the use of the remedy.

Eighteen cases of hematemesis, epistaxis, &c. &c., are related in illustration. The following is the formula prescribed: Lettuce water, ℥ iv; gum-syrup, ℥j½; aqueous extract of ergot, 15 grains. A tablespoonful every hour and a half.—*Ibid.*

Contagion of Typhoid Fever.—Dr. Piedvache, in the *Memoirs of the French Academy*, gives the following facts going to prove the contagious nature of this fever:

"1st. *Typhoid Fever, after attacking an individual, attacks other members of the same family in regular succession.*—From among M. Piedvache's 452 cases, in 49 there were two patients in the same house, in 30 three, in 14 four, in 13 five, in 2 six, in 1 seven, in 2 eight, and in 1 ten,—leaving but 92 (1-5), in which only one case was observed in the same house. The houses attacked nowise differed from those that escaped; and that the attacks of so many individuals in the same abodes did not result from mere local causes, is seen from the fact that such attacks were not simultaneous, three or four weeks always intervening between the first patient and his successors. The houses in which but one case occurred, were better than the others in regard to *ventilation*, as will be afterwards noticed.

2d. *An individual attacked with the fever, and transported to a family inhabiting a locality where it did not prevail, communicates it to that family.*—This is the fundamental proof relied upon by all those who have advocated the contagious nature of the disease, and especially by M. Gendrin (Journ. des Connaiss. Medic.," vols. i., and ii.), one of the ablest of these. This class of cases resembles the other in attacking several members of the same family; but the possibility of referring the propagation to any cause proper to the house which the patients inhabited, is quite cut away. The development of the disease too constantly followed the arrival of the patient to be regarded in the light of a coincidence; the

family enjoying good health prior to such arrival, and giving no signs of the disease until three or four weeks after it.

3d. *An individual attacked by typhoid transmits it to the persons who are in immediate attendance upon him, while the rest of the family does not suffer.*—Several examples of this are cited, in which the disease occurred in localities where it was not prevalent, and among the more comfortably circumstanced portions of society. In the other category, in which the disease was transmitted to *several* members of the same family, the lower orders were alone those so affected.

4th. *The attendant to whom the fever has been communicated transmits it to others.*—Among the 452 cases of typhoid fever which form the ground-work of this essay 411 either transmitted the disease, or were themselves the product of transmission—that is, 9-10 of the entire number; while those cases in which no such transmission occurred, only confirm the author's views as to the mode in which such transmission was effected in the others.

Opposed to these statements, we have the *negative* ones advanced by some of the ablest physicians attached to the Parisian hospitals; but these cannot destroy the value of *positive* facts, and only show that there are circumstances under which the phenomenon of contagion is not exhibited. Even among M. Piedvache's own cases, while of the entire 452 transmission was proved in 411, it was so in 393 of 419 country cases, and only in 15 out of 33 which occurred in the town of Dinan, and some of these 15 lived in the environs; so that in the strictness they should be considered as rural cases also. Seeing the great difference as to the manifestation of contagion which occurs in town and country, the comparative condition of the patients in each should be inquired into. As peculiarities attaching to the rustic patients, M. Piedvache mentions the number of their visitors, and the great amount of personal attendance they receive from their neighbors; the bad construction and over-crowded state of their sleeping-rooms preventing effectual ventilation; and the utter neglect of all cleanliness,—though this last is of very secondary influence as compared with defective ventilation. It is obvious that in hospitals, and in houses of the gentry, where transmission of the disease is so

rare, these conditions do not prevail. To the accidental obtaining a better ventilation, by sleeping in another room, the members of families among the poor have entirely owed their exemption when this has occurred; and to the more defective ventilation that is then procured, the author attributes the fact of more cases occurring in winter than in summer. He has never seen an example of contagion from a mere visit to a patient [the sojourn of a night in the patient's chamber seeming essential]; and priests and medical men, who are brought into very close *temporary* contact with the patient, very rarely acquire the disease.

An epidemic of typhoid does not spread from a centre, over a more or less considerable extent of country, like those of variola, scarlatina, &c. Only portions of a commune, a hamlet, or even a single house, may suffer; and once arrived in a locality, the length of its sojourn there is always remarkable. In the majority of the author's cases, the disease had reached the fourth week becoming communicated. It was so often later still, but very rarely so soon as the third week.

As several persons placed in favorable circumstances for acquiring the disease escaped doing so, some of the causes of their immunity may be adverted to. The first of these is the protection derived from a *prior attack*. M. Piedvache has never known an instance of its occurring a second time, and a patient surrounded by persons who have already had the disease does not propagate it. *Aged persons*, again, contract the disease with difficulty, though when exposed to circumstances favorable to contagion, they do not always escape. Among 138 cases, Louis found none above 39. Chomel supposed no case had been met with above 52; but since then Rayer has cited one of 56, and Prus one of 78. During the two epidemics witnessed by the author, almost all the aged persons living in houses where the disease prevailed escaped it. Still, 9 between 50 and 60, and 5 between 60 and 70, were attacked; and MM. Gendrin and Jacquet report similar examples. It was once believed that *young children* were very rarely attacked; but the researches of Rilliet and Barthez and Taupin show how erroneously. The attacks of children, in fact, often pass unperceived, and this may form some explanation of unlooked-for immunities in af-

ter life. Lastly, there are individuals whose constitution or idiosyncrasy resists the effect of contagion, under whatever circumstances they may be placed.—*Ibid.*

Pathology af Asthma.—Amongst the disturbances that may give rise to asthma, Wunderlich mentions:

1. Those occurring in the respiratory organs. Thus, congestion, extensive tubercular or cancerous deposits, emphysema, œdema, chronic bronchial catarrh, affections of the glottis, pleural adhesions, &c., have been mistaken by some writers for asthma itself, and have been regarded by others as causes of that affection. These are often complications of asthma, but we agree with Wunderlich in doubting whether they ever actually give rise to it.

2. Asthmatic attacks sometimes appear to depend on changes in the brain or spinal cord and their membranes, and on tumors pressing on the pneumogastric nerve. Alteration of structure in the brain near the origin of that nerve, chronic myelitis, ossification of the pulmonary plexus, and a tuberculous condition of the bronchial glands pressing on the pneumogastric nerve, have been described by different writers as causes of asthma. Wunderlich narrates an obstinate case of asthma recurring every week or two for several years. The patient was a man who had a small tumor under the anterior origin of the sterno-cleido-mastoid muscle, which gradually extended beneath the clavicle, and probably pressed upon the pneumogastric nerve. There was also slight emphysema, but not enough to account for the severe asthmatic attacks, which usually lasted for from three to eight days, and occurred at very short periods.

3. Affections of the heart and pericardium, and aneurism of the large thoracic vessels, have often been described as causes of asthma. Rostan even went so far as to maintain that asthma is always a symptom of an organic disease of the heart or of the large vessels. We should think that these diseases would primarily induce mechanical dyspnœa, rather than spasmodic asthma; they may, however, in a secondary manner, irritate the pneumogastric nerve, and thus actually give rise to the disease in question.

4. It has been generally assumed that deranged conditions of the stomach and intestinal canal, the liver, and the genito-urinary organs, may directly induce asthma. Whether this be the case or not, it is at all events certain that errors of diet, sexual excesses, and derangements of the digestive system, increase and aggravate the attacks of persons liable to asthma.

5. Certain conditions of the blood may cause asthmatic attacks. A superabundance of blood, or blood too rich in solid constituents, may give rise to symptoms that may be mistaken for asthma, although they are in reality symptoms pertaining to pulmonary congestion; and, on the other hand, a deficient supply of blood, or blood that is very poor in solid constituents, may give rise to symptoms that may be mistaken for asthma, although they are in reality symptoms pertaining to pulmonary congestion; and, on the other hand, a deficient supply of blood, or blood that is very poor in solid constituents, may give rise to symptoms which are, however, rather those of spasm of the glottis and of the diaphragm, than those of true asthma. The paroxysms of dyspnœa occurring in putrid and purulent poisoning of the blood, do not constitute true asthma. Wunderlich seems to doubt whether, the attacks of dyspnœa, which are so common when the kidneys are inert and the urinary constituents are retained in the blood, are really deserving of being considered asthmatic; indeed, he plainly expresses it as his opinion that in all probability the *asthma urinosum* of the older physicians and of Schonlein, is nothing more than pulmonary emphysema. As, however, he grants that lead, when introduced into the system, often produces asthma, and that other poisons not unfrequently do so, we see no reason why he should object to allow that the dyspnœa produced by the accumulation of urea in the blood is of an asthmatic nature.

Whatever may be the anatomical changes which are found in examining the bodies of persons who have suffered from asthma, the disease seems essentially to consist in a temporary and paroxysmal spasmodic constriction of the smallest bronchial canals (for the cartilaginous structure of the larger tubes will not allow of their being thus affected.)

Asthma is seldom the immediate cause of death; but

frequent attacks give rise to hypertrophy of the bronchial tubes, emphysema of the lungs, or certain forms of heart disease, which modify and aggravate the original affection, and hasten a fatal termination.

We find very few points of novelty in any of our authors in relation to treatment. Wunderlich recommends that during the paroxysm, if it comes on suddenly and with great intensity, the bowels should be emptied by a powerful injection; and he seems to think that there are many cases in which venesection would be serviceable. As, however, he adds, the arguments for and against bleeding are often nearly balanced, it is sometimes expedient to open a vein, and either to close it almost directly, or to allow the blood to flow, according to the immediate effect produced on the patient. The general testimony is, however, strongly against venesection. If the patient can drink, he should take a little warm tea containing opium, stramonium, or lobelia inflata. Strong black coffee and iced drinks have also been recommended. In those cases where the attack is more gradual, an emetic often gives great relief, and sometimes at once cuts short the paroxysm. Ipecacuanha in small doses is sometimes useful; but what Wunderlich has found most useful is a combination of tartar emetic with large doses of opium (from half a grain to one grain every hour). Stramonium smoked with an equal quantity of tobacco relieves the pains which are usually felt in the chest, but is of no other use. (This, at least, is Wunderlich's experience, who adds, that the much-praised camphor cigarettes are even less efficacious.) Constatt, as we have already had occasion to mention, enters more fully into the consideration of the individual therapeutic agents, than Wunderlich or any of our authors. We give his observations on a few of the medicines that have at different times had a high reputation in asthma:

"The Datura Stramonium has obtained a character as a specific against asthma (Krimer, Cruveilheir, Reimer, Zeigler, Ward, Marcet, Meyer, Helm, Cunningham, Hegewisch, Ferrus, Elliotson.) It is given in powder, in gradually increased doses, from two to twelve grains; in extract, from a quarter of a grain to four grains; or in tincture, from five to twenty drops. We frequently recommend the stalks and leaves to be smoked, the patient

being directed to swallow his saliva. Hegewisch orders that the number of pipes should be increased, till all the urgent thoracic symptoms have disappeared; if a relapse comes on, the patient must again begin with one or two pipes, and proceed as before. Unfortunately, asthmatic patients are often unable to inhale the smoke. The Datura fastuosa has been employed by Adams in the form of a tincture, of which thirty or forty drops were to be taken every two hours; and by Skipton in the form of decoction of its bark.

"The Lobelia inflata [Indian tobacco] was first employed by American physicians, and has recently obtained a high reputation as a remedy for asthma [Eberle, Barton, Chapman, Whitlaw, Andrews, Bidault, De Villiers, Reece, Sigmond, Elliotson, Newmann, Forbes, Morelli, Noack]. We usually give twenty or thirty drops of the tincture of the leaves at the commencement of the paroxysm, or shortly before an attack is expected; more rarely we give the powder in doses of fifteen or twenty grains. It appears to exert a specific influence on the respiratory nervous system.

"Common tobacco acts in a similar manner; it may be smoked or given in the form of tincture. . . . . The Bignonia catalpa (indigenous in Carolina) was described as a specific by Kampfer and Taubery; and has been more recently extolled by Brera, Brudent, Antomarchi, and Antonisca." (Constatt's Handbuch der medicinischen Klinik,' vol. iii. part 2, p. 450.)—*Ibid.*

American Medical Association.—We copy from the *Stethoscope* some particulars of the late meeting of this body not given in our last number. The following are the resolutions offered by Dr. Drake to which reference was made. It will be remembered that they were not adopted.

1. *Resolved*, That every report on a medical or other scientific subject shall be referred to a select committee, to be read, analyzed and reported on to the association; said select committee indicating its general character and worthiness of publication, provided the authors of every report shall have the right of appealing to the association.

2. *Resolved*, That no report shall be read before the association until it has been examined and reported on by the committee to which it may be referred; nor then but under an order of the association.

3. *Resolved*, That no report shall be published in the Transactions of the association but in virtue of its order.

4. *Resolved*, That all professional and other scientific communications made to the association, shall be referred and treated like the reports of committees.

5. *Resolved*, That the president, vice presidents and secretaries of the association shall be charged with the appointment of the aforesaid committees, being themselves eligible for such appointments.

6. *Resolved*, That the authors of all reports and papers aforesaid shall have the privilege of reading and explaining the same before the committees.

The report of the committee on the Medical Botany of the U. S. for 1850–'51, from Dr. A. Clapp, chairman, was presented and referred to the committee of publication.

THURSDAY, May 6, 1852.

The association was called to order at 9½ o'clock—Dr. Wellford, president, in the chair.

The minutes were read, amended and approved.

Dr. Green, of N. Y., offered the following resolutions, which were adopted:

1. *Resolved*, That at all future meetings of this association all reports of committees and all contributions on scientific subjects occupying more than ten pages of quarto post manuscript, be accompanied each by an abstract or synopsis embracing the principal points of such report or paper, which abstract or synopsis may be read before the association.

2. *Resolved*, That the above resolution be transmitted by the secretary to the chairman of each scientific committee.

Dr. Sutton, of Ky., moved that a committee of three be appointed, whose duty it shall be to inquire whether any, and if any, what action this association shall take in reference to requesting the Congress of the United States to have a large edition of the medical statistics, furnished by the census lately taken, published in a separate form for distribution among the medical profession of the United States, and to report to-day.

The chair announced the committee, to consist of Drs. Simons, of S. C., Boyle, of D. C., and Sumner, of Conn.

The report of the committee appointed to consider the various propositions which had been made, suggesting amendments to the constitution, being called for, the chairman, Dr. F. Campbell Stewart, of N. Y., read a report and resolutions, which Dr. Hays, of Pa., moved to refer to the committee of publication, with instructions to print.

Drs. J. K. Mitchell, of Pa., and W. Hooker, of Conn., discussed the merits of the report, when Dr. Lopez, of Alabama, raised a question of order as to the propriety of a discussion of the merits of the proposition.

The chair decided that the discussion was in order at this stage of the proceeding.

Dr. Lopez, of Ala., appealed from that decision, which appeal was not sustained.

The discussion was then continued at great length by many members.

During the discussion, the following replies were elicited from several gentlemen, by questions propounded by Dr. Watson, of New York:

From Dr. Horner, University of Pa.—The shortest term of medical study in the University required for the doctorate was three years, but that under some few and rare circumstances, a deviation had been permitted as an exception.

Drs. Davis and Rogers, of Virginia University, stated that their laws required no specified time: nine months, and eighteen years of age even, were sufficient, but that two years were generally devoted to the study of medicine by their graduates. They explained the course of instruction at the University at length.

Dr. Huston, of Jefferson Medical College, Philadelphia, said that three full years were required, but that occasions demanded sometimes a departure from the stringent rule.

Dr. Frost, from South Carolina, offered some interesting observations upon the much abused subject of medical education, and insisted that the profession had not retrograded. That there had been a steady and gradual improvement in our medical colleges generally, and brought to the notice of the association the attention

which was observed in preparatory education in the medical college of South Carolina, which was highly creditable to the same. His remarks were listened to with attention, and brought forth observations of a like character from other members present.

The report and proposed amendments were received, after having been amended so as to read as follows: (We omit the report.)

ARTICLE I.—*Title of the Association.*

This institution shall be known and distinguished by the name and title of "The American Medical Association." It shall be composed of all the members of the medical profession of the United States of good standing, who acknowledge fealty to and adopt the code of ethics adopted by the association; and its business shall be conducted by their delegates or representatives, who shall be appointed annually in the manner prescribed in this constitution.

Strike out the whole of Article II, referring to "Members," and insert the following:

ARTICLE II.—*Of Delegates.*

Sec. 1. The delegates to the meetings of the association shall collectively represent and have cognizance of the common interests of the medical profession in every part of the United States, and shall hold their appointment from county, State and regularly chartered medical societies; from chartered medical colleges, hospitals and permanent voluntary medical associations in good standing with the profession. Delegates may also be received from the medical staffs of the United States army and navy.

Sec. 2. Each delegate shall hold his appointment for one year and until another is appointed to succeed him, and he shall be entitled to participate in all the business affairs of the association.

Sec. 3. The county, district, chartered and voluntary medical societies shall have the privilege of sending to the association one delegate for every ten of its resident members, and one more for every additional fraction of more than one half of this number.

Sec. 4. Every State society shall have the privilege of sending four delegates; and in those States in which county and district societies are not generally organized, in lieu of the privilege of sending four delegates, it shall

be entitled to send one delegate for every ten of its regular members, and one more for every additional fraction of more than one half of this number.

Sec. 5. No medical society shall have the privilege of representation which does not require of its members an observance of the code of ethics of this association.

Sec. 6. The faculty of every chartered medical college acknowledging its fealty to the code of ethics of this association, shall have the privilege of sending one delegate to represent it in the association: *Provided*, That the said faculty shall comprise six professors, and give one course of instruction annually of not less than sixteen weeks on Anatomy, Materia Medica, Theory and Practice of Medicine, Theory and Practice of Surgery, Midwifery and Chemistry: *And provided also*, That the said faculty requires of its candidates for graduation—1st. That they shall be twenty-one of age; 2d. That they shall have studied three entire years, two of which must have been with some respectable practitioner; 3d. That they shall have attended two full courses of lectures, [not however to be embraced in the same year,] and one of which must have been in the institution granting the diploma, and also where students are required to continue their attendance on the lectures to the close of the session; and 4th. That they shall show by examination that they are qualified to practice medicine.

Sec. 7. The medical faculty of the University of Virginia shall be entitled to representation in the association, notwithstanding that it has not six professors, and that it does not require three years of study from its pupils, but only so long as the present peculiar system of instruction and examination practised by that institution shall continue in force.

Sec. 8. All hospitals, the medical officers of which are in good standing with the profession, and which have accommodation for one hundred patients, shall be entitled to send one delegate to the association.

Sec. 9. Delegates representing the medical staffs of the United States army and navy shall be appointed by the chiefs of the army and navy medical bureaux. The number of delegates so appointed shall be four from the army medical officers and an equal number from the navy medical officers.

Sec. 10. No delegate shall be registered on the books of the association as representing more than one constituency.

Sec. 11. Every delegate elect, prior to the permanent organization of the annual meeting, and before voting on any question after the meeting has been organized, shall sign the constitution and inscribe his name and address in full, with the title of the institution which he represents.

FRIDAY, May 7, 1852.

The association was called to order by the president at 4½ o'clock, P. M.

The minutes of yesterday's session were read, amended and approved.

Dr. Atlee, of Pennsylvania, offered the following preamble and resolution, which was unanimously adopted:

Whereas it is the duty of patriotism to do homage to those who have been benefactors to their country; and whereas the medical profession in the United States, heretofore not wanting in patriotic feeling or action, desire to co-operate with the other public bodies and institutions of the country in rendering their profound reverence to the memory of him who was "first in peace, first in war, and first in the hearts of his countrymen:"

Be it therefore resolved, That a committee of five be appointed, whose duty it shall be to solicit subscriptions from members of the American Medical Association, for the purpose of procuring a suitable stone with an appropriate inscription, for insertion in the name of this association, into the national monument to the memory of Washington now in progress of erection at Washington city.

Dr. Wood, of Pa., then moved that instead of awarding five prizes of $50 each, annually, the association hereafter grant two prizes of $100 each, for the two best essays. Carried.

On the Distribution of the Crinoidea in the Western States. By Prof. L. P. Yandell.—Having been engaged for several years past with my friend, Dr. B. F. Shumard, in collecting materials for a monograph on the crinoidea of the Western States, I propose to submit a few details respect-

ing the distribution of the remains of this interesting class of animals through the palæozoic rocks, of this portion of the Mississippi valley. The richness of this quarter of our country in these fossils has already been made known to the scientific world by the labors of the late lamented Dr. Troost, whose monograph on the crinoidea of Tennessee is in course of publication under the auspices of the Smithsonian Institution. The list of the great naturalist of Tennessee includes about thirty genera and a hundred species, most of which, when he wrote, were undescribed.

The collection of Dr. Shumard and myself includes specimens from Ohio, Indiana, Illinois, Iowa, Missouri, Tennessee, Kentucky, and Alabama, extending from the lower Silurian rocks to the beginning of the coal series, and amounts to about twice the number of species described by Dr. Troost. In the present state of our knowledge we would not venture to pronounce positively on the number, but we believe it will be found rather to exceed than fall short of thirty-five genera and two hundred species, of which a few are described by Prof. Hall, in the Palæontology of New York, some have been published by Drs. Owen and Shumard, in the Journal of the Academy of Natural Sciences of Philadelphia, and many are embraced in the forthcoming work of Dr. Troost; but a great part are new.

One of the first facts which arrested our attention in regard to our crinoids, is the limited geographical range of all but a few species. While we met with the same brachiopods and corals over wide areas, we soon had occasion to remark that encrinites were limited to a few narrow localities. *Caryocrinus ornatus* is perhaps the most widely distributed of our species. It is found in Louisville, Ky., and in Decatur county, Tenn., as well as at Lockport, N. Y., where it was first discovered. One of Dr. Troost's new species is also widely diffused—the *Agaricocrinus tuberosus*—having been found at White's Creek Springs, near Nashville, Tenn., in the vicinity of Scottsville, Ky., and at Warsaw, Ill.; and the same is true of *Olivanites verneuili*, Troost (formerly *Pentremites verneuili*), which occurs abundantly in the upper strata of the Falls of the Ohio, and presents itself in the States of Ohio and Indiana wherever those strata are exposed. A

few other species occur at various points, but much the greater number appear to have been restricted to a single spot.

With so circumscribed a range, it will not be thought singular that nearly all the species in our cabinets are peculiar to the Mississippi valley. I am aware how unsafe it is to decide hastily as to the identity or diversity of species bearing a close resemblance to each other, but after the full investigation I have had time to give the subject, my impression is, that not a single one yet found in the Western States is common to Europe and this country. Drs. Owen and Shumard incline to the belief that *Platycrinus granulatus*, and *Poteriocrinus plicatus* belong to our formations. It may be so, but if the European and American species are identical they form solitary exceptions amid a great multitude of forms. We have traced analogy everywhere, but examples of identity are still doubtful. The analogy between our species and those of Europe occurring in equivalent systems is, indeed, one of the most striking and interesting facts discovered in the progress of our researches. The *Cystidea* of Russia, Sweden, and England have their analogues in the Silurian rocks of Kentucky and Tennessee. Troost's *Echinocrinus fenestratus* answers to species of Echino-encrinus which occur in Russia; and we have lately discovered in the neighborhood of Louisville, and in Decatur co., Tenn., specimens of what Prof. Hall pronounces a *Spheronites*, corresponding to the same form which has been found in the Silurian strata of England. *Caryocrinus*, which is peculiarly American, is represented by *Hemicosmites* at St. Petersburg. The *Agaricocrinus tuberosus* of Troost has a striking resemblance to *Actinocrinus amphora*, found in equivalent formations in Ireland. The genera *Platycrinus*, *Actinocrinus*, and *Eucalyptocrinus* occur in the rocks of our country which are equivalent to those affording them in Europe, and contain species which it is difficult to distinguish from their European analogues—so difficult, indeed, that several have been taken for the same.

We have had many opportunities to remark the exceedingly limited vertical range of our crinoidea, as other observers had done before, and are prepared to assert with great confidence, that not one of our species occurs in more than one formation. For the most part, each is

contained in a thin and well-defined stratum, beyond the borders of which it is seldom to be traced. Not a single species is common to the lower and upper Silurian systems, or to the Silurian and Devonian, or to the Devonian and Carboniferous, much less to the three systems; and the same, with slight qualifications, might be said of genera, as will presently appear. No fossils, it is believed, will be found to be more characteristic of their containing strata, or to mark more precisely the limits of succeeding systems, than the crinoidea.

We have met with crinoidal remains at a point lower in the geological scale than they were ever before discovered. Dr. Shumard first saw their broken columns in Wisconsin and Minnesota, several hundred feet below the magnesian limestone, in strata corresponding to the Potsdam sandstone of New York—showing that this curious race of beings were among the earliest tenants of the deep. They appeared with the primeval brachiopods and crustaceans, and have maintained their existence through every successive epoch, but in varying proportions, and in singularly diversified forms. In the oldest Palæozoic rocks we detect only, scattered here and there, the fragments of their stems and bodies. In the Trenton group of New York, and in its equivalent rocks in the West, we find a few genera and species, in a good state of preservation. In the Niagara group, at the middle of the Silurian system, we discover a sudden and great expansion of the race, which soon after seems to have begun to decline, and to have been less abundant throughout the Devonian era. But in the age which followed, they attained a great development; the Carboniferous era was the age of the crinoids. Thus, in our collections, we have from the lower Silurian system six genera and six species; and from the upper beds of that system, chiefly the Niagara group, we have ten genera and forty species. From the Devonian rocks, we have ten genera and seventeen species; while from the Carboniferous system we have twelve genera and one hundred and fifty species.

I do not suppose that these figures represent accurately the ratio of the species in the several systems, for our opportunities for collecting from all have not been equally good; but I feel assured that they will be found to be an approximation to the truth. At Louisville, the Devonian

rocks are well displayed; but we have found them less rich in these fossils than the strata of an earlier age; and from one or two localities in the Carboniferous formations, we have obtained a greater number of species than this system has hitherto afforded. The fact seems to be a general one, that the crinoidea experienced a remarkable increase about the middle of the Silurian epoch—that they were stationary, if they did not decline, during the Devonian era, and reached their utmost expansion in the ages that succeeded. It has been remarked by Professor Hall, as true of the formations of New York; and the same has been the experience of European geologists.

With the succession of formations, we have a remarkable shifting of genera, and change of form, and external ornament. *Glyptocrinus*, *Schizocrinus*, *Heterocrinus* and *Agelacrinu* cease with the older Silurian strata, and are succeeded by *Haplocrinus*, *Eucalyptocrinus*, and by *Caryocrinus*, *Balanocrinus*, *Cupellæcrinus*, and many undetermined genera peculiar to our continent. These, in turn, are left behind when we ascend to the Devonian series, in which we find other forms and new genera. Here we meet with a crinoid with four bulky arms, destitute of a stem—a free-moving encrinite, showing thus early an approach in this family towards the starfishes, placed just above them in the animal scale. At this point, too, occurs our first *Actinocrinus*, which, like the forms abounding in the preceding series, is remarkable for the beauty of its external ornament. And here we also encounter a new crinoidal type—the *Pentremites*—already prefigured in *Eucalyptocrinus* of the middle Silurian period. Dr. Troost described as *Pentremites Reinwardti*, a form which he was the first to discover in Decatur county, Tenn., and which, from its associated fossils, has been generally assigned to the Silurian age. Strictly speaking, *Pentremites Reinwardti*, though bearing the closest analogy to that group, is not a pentremite, but must be placed in a new genus along with some other organisms found in rocks of a similar age. From the fact that it is found in Tennessee accompanied by *Calceola*, a Devonian fossil, and that we also find it at the Falls of the Ohio, in strata unquestionably Devonian, I do not hesitate to refer it to this system. Along with it, at the latter locality, two or three species occur closely related to it, together with *Olivanites Ver-*

neuili Troost, and one or two species of the same genus.

Just above the beds containing these forms, the limestone series cease, and the black slate is superimposed. With the incoming of this formation, we lose all vestiges of the crinoids, until we reach an intercalated stratum of limestone near its summit, where encrinital remains again become abundant. This stratum of encrinital limestone is regarded as the base of the Carboniferous system, containing as it does among its imbedded fossils, *Orthis Michelini*, *O. crenistriæ*, *Terebratula Roissyi*, *Spirifer striatus*, *Productus punctatus*, *P. semireticulatus*, *Phillipsia*, *Griffithidis*, and encrinites of forms known only to that system in Europe.

The aspect of the crinoids of this period is eminently distinctive—in some respects denoting inferiority to the older forms, in others indicating advancement. The exquisitely ornamented surface has, for the most part, disappeared, and a plain exterior succeeded; but with it we have tentaculated fingers, and a generally more complicated organization. In this age *Actinocrinus* attained its full development, and the species of *Cyathocrinus*, if they did not appear here for the first time, only became abundant at this period. *Platycrinus*, incorrectly placed in the older series, had its beginning with this formation, and was accompanied by *Dichocrinus* and *Synbathocrinus*, by Troost's *Conocrinus*, *Agaricocrinus*, *Catillocrinus*, and by many other new, undetermined genera. The graceful *Agassizocrinus* of Troost, a stemless, free-swimming form, like the asterias, was rife in this age, and had for its companions *Melonites* and the true *Pentremites*, which latter must have swarmed in the seas that gave origin to our mountain limestone. *Pentremites florealis* occurs near the base of this formation, and is found in all its divisions up to the topmost strata. With the pentremites, we find still another novel form, intermediate between them and the new genus *Melonites*—the *Granatocrinus cidariformis* of Troost; and here, too, we meet with *Cidaris* and other echinoderms.

This succession of genera is a striking feature in the history of the crinoidea, and their extinction at various periods, affords a problem of great interest to the zoölogist. Why they should, one after another, have perished from the early seas in which they lived, to be succeeded

by other and still distinct forms, is a mystery which must perhaps in most cases remain forever unexplained; but in some instances a satisfactory solution seems to be attainable. Sir Charles Lyell, in his Manual of Elementary Geology, describes the "Bradford apiocrinites" as having grown in an oolitic limestone, upon which their stony roots now form a continuous pavement; a layer of clay rests upon it, containing the bodies and stems of innumerable encrinites. "In this case," he remarks, "it appears that the 'Great Oolite' had supported, for a time, a thick submarine forest of these beautiful zoophytes, until the clear and still water was invaded by a current charged with mud, which threw down the stone-lilies, and broke most of their stems short off near the point of their attachment." At several localities I have observed traces of a similar succession of events. The Buttonmould Knob, in the vicinity of Louisville, affords a striking example. A thin bed of limestone, deposited near the top of the Black Slate, is made up almost exclusively of the exuviæ of encrinites, showing that these animals abounded in clear water charged with carbonate of lime. The formation changes, and the crinoids disappear, having been entombed in the argillaceous deposit in which their remains are imbedded. In places where the clay is unmixed with iron, the fossils are in an excellent state of preservation; where iron mingles with it, they are generally fragmentary and imperfect.

We have satisfied ourselves of the carnivorous habits of the crinoidea. In one of our earliest excursions, we discovered a curious encrinite with an acroculia between its fingers, as if it had been in the act of devouring it when it perished. At Cincinnati we have been shown several specimens, in which a trochus is thus entangled in the rays of *Glyptocrinus decadactylus*, and we have lately received from our friend, Mr. Worthen, of Warsaw, Ill., a platycrinus, and more than one species of actinocrinus, with an acroculia in a similar position. The gasteropods seem to have been their favorite article of food.

The prevalence of the crinoids in this country, as compared with Europe, is a fact that will strike every observer. Dr. Troost supposed that he had collected together the remains of a greater number than were at that time known to European palæontologists, and the list known

to him has been already more than doubled. These organisms are to our continent what the crustaceans are to Europe—the ocean-lilies swarmed along the shores of our early seas, as the trilobites did in the ocean which has given place to dry land in the old world. Entering at the same time upon the stage of existence, at the earliest dawn of creation, the trilobites reached their meridian in the first Silurian epoch, and died out at the beginning of the Coal period. The crinoids only attained their full development in the Carboniferous era, and, extending through the Mesozoic period, have still their representatives among existing races.—*Proceedings of the American Association.*

Quinine in Typhus and Typhoid Fevers.—On this subject, Professor Bennett read a paper to the Medico-Chirurgical Society, on Wednesday evening. It appeared, that about the month of November last, Professors Bennett and Christison had received communications from Dr. Dundas, of Liverpool, mentioning the beneficial results he had found to follow the exhibition of quinine in the continued fevers of warm climates. So strong were the representations of Dr. Dundas, that Professor Bennett, whose period of clinical duty in the Infirmary had at that time just commenced, determined to give the remedy a fair trial. The doses Dr. Dundas recommended were ten grains every second hour. Dr. Bennett had given quinine in seven out of fourteen cases of typhus or typhoid fever admitted into the Royal Infirmary during the period from November to the end of February. In all seven the physiological effects of the remedy had been produced. In most of the cases, the seventh was the day of the disease on which the treatment of quinine was begun, in some it was later; one patient, however, had it on the sixth day, and none later than the tenth. In one case, 205 grains of quinine had been taken in eighteen doses. In five others about 80 grains had been taken. Dr. Bennett had in none of these instances found the quinine to cut short the disease, or in any way favorably to influence its progress. In one case convalescence had been delayed till the forty-second day. At the same time, Dr. Bennett thought it proper, in bringing the sub-

ject before the Society, to mention, that the experience of some other physicians had been more favorable. Dr. Graves, of Dublin, for example, had written to Dr. Dundas to that effect, and so had Dr. Kelly, of Drogheda, who had treated eight cases with the happiest results. Professor Christison's experience had as yet been limited to one case, that of a girl who had contracted typhoid fever in the hospital when recovering from another disease. In it the employment of the remedy had certainly produced no favorable effect—it was now the forty-second day, and no marked convalescence had commenced. He regarded Dr. Bennett's experiments as of additional value from having been made *coram publico*, in the presence of a large number of intelligent students, many of whom had been from time to time examined on the very cases themselves. Important as the inquiry was, he much feared that the discovery of quinine as an antidote in continued fever would prove of but little avail, unless the additional discovery of new cinchona forests was also made.

Dr. William Robertson had also administered the quinine in some cases, in none with benefit. He had in two cases observed very alarming symptoms to follow its exhibition, a state of almost complete coma having been induced.—*Medical Times.*

THE WESTERN JOURNAL.

THIRD SERIES.—VOL. X.—NO. I.

LOUISVILLE, JULY 1, 1852.

CONTAGIOUSNESS OF TYPHOID FEVER.

Dr. A. B. Chambers, of Warsaw, Kentucky, has communicated to us the following facts bearing upon the *contagiousness of Typhoid Fever*:

"I have a friend residing on a wide bottom of Eagle creek, in this county. He has lived there for ten or fifteen years, his family enjoying excellent health. The latter part of last summer he sent out one of his daughters to school in Louisville, where she remained about two months, when becoming indisposed she was brought home. Her sickness proved to be typhoid fever in a very distinct form. Her recovery, which took took place in from three to five weeks—not now distinctly remembered—was followed by an attack of her brother, and subsequently of her parents, her grandfather, who resided in the family, and all her other brothers and sisters (six in number) except one, and some seven or eight negroes. When all the other members of the white family had become sick, the little daughter, who had as yet escaped, was sent to the house of the gentleman's mother, in the hope that a change of locality and removal from the contaminated atmosphere of home might secure her from an attack. She remained there for three weeks, to all appearance in

perfect health, with the exception of a slight inflammation of one of her eyes, which yielded to simple treatment. At the end of this time she was taken down with the same fever, in a well marked form, and was sick for two months. In the latter part of the winter, a young lady, a relative of the family, residing at Midway, in Woodford county, hearing of the affliction of her friends, came down to assist in nursing them. She remained two weeks in constant attendance on several of the family who were then slowly recovering, and then paid a visit to the little daughter who was lying sick. At this house she was attacked in a day or two, and had a hard spell of fever, lasting some six weeks, but is now again restored to health. In the early part of her sickness, a negro girl belonging to another member of the family, was employed to assist in nursing, and particularly to wash the clothes of the sick persons. Some ten or fifteen days after returning home, she was attacked with the disease in a mild form, so mild that it did not confine her constantly to bed, but still with the characteristic symptoms distinctly marked—such as muscular debility, continued fever, rapid pulse, abdominal tenderness, liquid stools, &c. She is now well; but a negro man who slept in the same house with her, has been attacked with the same symptoms in a severe form. In addition to these, a brother of the gentleman, who spent some days in his family during their sickness, on returning to his home, was sick for some two weeks, though of the precise character of his symptoms I am not informed, as I did not see him till he was much improved. He thinks, however, that his disease was similar in character though not so severe as that he saw in his brother's family.

Up to this time there had been but little of this fever in our county, in comparison with many in the interior of the state; and during the period mentioned there was not more among the other inhabitants than usual.

Until those cases came under my observation I had not met with anything to authorise the belief that typhoid fever is contagious, nor did I believe it; but I confess that if my opinion has not undergone an entire change, my faith in its non-contagious character is greatly shaken.

Some of these cases presented the disease in a grave form; in most of them it was mild; but in all the symptoms were highly characteristic."

Warsaw, May 13th, 1852.

THE SPIRITUAL RAPPERS ONCE MORE.

Our readers will remember the exposure made of the "Spiritual Rappers," by Dr. Lee, Dr. Flint, and others, at Buffalo, a few months

since. Notwithstanding that the pretensions of these young ladies were so effectually exposed on that occasion, they are still perambulating the country, imposing upon the credulous, and turning the heads of a few weak people. They paid a visit to Kentucky, a short time since, and were in Lexington, where they were met by our friend, Dr. Darby. We have received from the doctor a long and amusing account of his interview with the *Misses Fox*, the sum of which is, that when they found he had come to investigate rather than to stare, they refused to perform. We would give the whole of his interesting letter if we did not deem the humbug unworthy of any further notice. Suffice it to say, the Misses Fox made a very short stay in Lexington. They felt that their tricks had been exposed, for, Dr. Darby adds, "they would not appear the day after he saw them although they remained in the city till the afternoon train of cars left for Louisville." We learn from Dr. D., that more than one physician had marvelous stories to tell of the fair jugglers, after an interview with them, and no doubt that wherever the "Rappers" go they will find, even among the learned, good subjects to help on with the imposture. Nevertheless, we think it must now soon come to an end.

ASSOCIATION OF BOTANISTS.

We learn from the Cincinnati papers, that an Association of Systematic Botanists, having for its object the study and advancement of Systematic or Scientific Botany, has been recently organized in this city; President, Dr. John A. Warder; Secretary, James W. Ward, Esq. The objects of the Society are eminently practical, embracing the classification, nomenclature and normal habits of plants and the definition of their general characters, together with the history and description of the insects that feed on and destroy them. Persons willing to co-operate with the Society in any of its objects, or desiring information in regard to specimens they may have obtained, will receive attention by communicating with Mr. Ward, the General Secretary.

In this connection we beg leave to call the attention of our readers to the *Natural History Society of Louisville*, and would say to any of them who may have specimens of minerals, fossils, or animals respecting which they are desirous of obtaining information, their wishes will be attended to if they will forward them to Dr. Clapp, the President, or to Dr. L. P. Yandell, the Secretary, at the University of Louisville.

HISTORY OF SURGERY IN KENTUCKY.

We invite the attention of our Kentucky readers to the subjoined circular. And are there not among the many physicians who have gone from Kentucky, some who could communicate valuable facts touching the surgical history of their native State? All who are in possession of information on this subject will, no doubt, take pleasure in contributing to make the proposed history complete.

To the Physicians of Kentucky.—The undersigned, chairman of the committee on surgery, of the Kentucky Medical Society, begs leave, in compliance with the duties assigned to him, to call the attention of his professional brethren, in all parts of the State, to the subject, and to request them to send to him, on or before the 15th of August next, all such facts and observations within their knowledge as may be calculated to illustrate the history and practice of surgery, from the earliest settlement of the country to the present moment. It is the sincere desire of the undersigned not to overlook or pass unnoticed the claims of any one, and he therefore earnestly invites the cooperation of all.

Louisville, June 19, 1852. S. D. GROSS, M. D.

UNIVERSITY OF LOUISVILLE.

Professor Drake's devotion to Cincinnati, and to the school of his earlier days, has again prevailed with him to resign his chair in the University of Louisville, and return to the Medical College of Ohio, and Professor Cobb has followed his example. The paramount consideration with the latter gentleman for giving up a place which he had so long and so creditably held, was the opportunity afforded by the change of securing an appointment—that of Demonstrator of Anatomy—for his promising son, Dr. William H. Cobb. The separation of those gentlemen from their old associates is without any diminution of that mutual esteem and good will, which has subsisted between them during all their professional intercourse.

The Board of Trustees have filled the vacancies by the appointment of Professor Austin Flint, of the University of Buffalo, to the chair of *Theory and Practice*, and of Professor Benjamin R. Palmer, to the chair of *Anatomy*. Professor Palmer is connected with the University of Buffalo, as Professor of Anatomy, and has for a number of years held the same chair in the Medical College of Vermont, at Woodstock.

We have delayed the issue of our present number a few days for the

purpose of being able to make this announcement, and have now space for little more than to congratulate the alumni and friends of the University upon the very satisfactory manner in which the Board have supplied the places of Profs. Drake and Cobb. Like their predecessors, Professor Flint and Professor Palmer are men of a national reputation, well tried and eminently successful as teachers. As a lecturer, those who have been associated with him speak of Professor Palmer in the highest terms. His lectures and demonstrations are described as being clear, accurate, thorough, and his manner one to awaken enthusiasm in the mind of the student, secure his unremitted attention, and enforce the acquisition of anatomical knowledge. Professor Flint at one time held a chair in the Medical College of Chicago, and has been for a number of years Professor of the Theory and Practice of Medicine in the University of Buffalo. His experience both in private and hospital practice has been ample, and he is known everywhere in our country as a writer on practical medicine. His essay "*On Variations of Pitch in Percussion and Respiratory Sounds,*" as has already been noticed in this journal, received the prize at the late meeting of the American Medical Association, and was declared by the committee to have enlarged the bounds of medical science. He is a polished, vigorous, and original writer, and a clear, instructive, and eloquent lecturer. The accession of such men to the school is at once the best evidence of its high character abroad, and the surest guaranty of its future success.

These gentlemen have accepted.

UNIVERSITY OF NASHVILLE.

We have before us the Second Annual Announcement of the Medical Department of the University of Nashville, from which it appears that the class in that institution last winter, numbered one hundred and twenty-one. The number of graduates was thirty-three No medical school in our country ever had so prosperous a beginning.

UNIVERSITY OF NASHVILLE,

MEDICAL DEPARTMENT.

The second annual course of lectures in this department will commence on the first Monday of November next, and continue till the first of the ensuing March.

PAUL F. EVE, M. D., Principles and Practice of Surgery.
JOHN M. WATSON, M. D., Obstetrics and the Diseases of Women and Children.
A. H. BUCHANAN, M. D., Surgical and Pathological Anatomy and Physiology.
W. K. BOWLING, M. D., Institutes and Practice of Medicine.
C. K. WINSTON, M. D., Materia Medica and Medical Jurisprudence.
ROBERT M. PORTER, M. D., General and Special Anatomy.
J. BERRIEN LINDSLEY, M. D., Chemistry and Pharmacy.
WILLIAM T. BRIGGS, M. D., Demonstrator of Anatomy.

The Anatomical Rooms will be opened for students on the first Monday of October.

The Students will have access to the State Hospital.

A full Preliminary Course of Lectures will be given by the Professors, commencing also on the first Monday of October.

Fee of each Professor $15. Matriculation ticket $5; Dissecting ticket $10; Graduation fee $25.

Good board can be obtained in the city at from $2 50 to $3 per week. Further information may be obtained by addressing the Dean

J. B. LINDSLEY, M. D., Dean.

Nashville, Tenn., July, 1852—m3

MEMPHIS MEDICAL COLLEGE.

SESSION OF 1852-'53.

The regular course of Lectures will commence on the first Monday in November, and continue four months.

AYRES P. MERRILL, M. D., Prof. of Materia Medica and Therapeutics.
LEWIS SHANKS, M. D., Professor of Obstetrics and Diseases of Women and Children.
EDWARD H. LEFFINGWELL, M. D., Prof. of Chemistry and Toxicology.
HARDY V. WOOTEN, M. D., Prof. of Principles and Practice of Medicine.
HOWELL R. ROBARDS, M. D., Professor of Surgery.
ARTHUR K. TAYLOR, M. D., Professor of Anatomy.
CHARLES T. QUISSTARD, M. D., Prof. of Physiology and Pathology.
DANIEL F. WRIGHT, M. D. Demonstrator of Anatomy.

The Class will have free access to the Hospital during the Session, when, in addition to the instruction given by the Surgeon, Dr. George A. Smith, there will be regular Pathological and Clinical Lectures by the Professors.

The Lecture, Anatomical, and all other necessary rooms in the College are large and comfortable; and arrangements are made to supply the school, by the next session, from the collections of Europe and this country with full Chemical Apparatus, Anatomical Museum, and every thing required to demonstrate the different branches. The material for the practical study of Anatomy is abundant, and special attention to that branch will be given.

LEWIS SHANKS, M. D.,
Dean of the Faculty.

May 1852—m7

UNIVERSITY OF LOUISVILLE,

MEDICAL DEPARTMENT.

The Lectures in this Department will commence on the first day of November next and terminate on the last of February.

CHARLES W. SHORT, M. D., Emeritus Professor of Materia Medica and Medical Botany.

BENJAMIN R. PALMER, M. D., Professor of Descriptive and Surgical Anatomy.

LUNSFORD P. YANDELL, M. D., Professor of Physiology and Pathological Anatomy.

SAMUEL D. GROSS, M. D., Professor of the Principles and Practice of Surgery.

HENRY MILLER, M. D., Professor of Obstetric Medicine.

LEWIS ROGERS, M. D., Professor of Materia Medica and Therapeutics.

BENJAMIN SILLIMAN, Jr., M. D., Professor of Medical Chemistry and Toxicology.

AUSTIN FLINT, M. D., Professor of the Theory and Practice of Medicine.

T. G. RICHARDSON, M. D., Demonstrator of Anatomy and Director in Pathological Anatomy.

The fee for admittance to the Lectures of each Professor is $15, payable invariably in advance. Matriculation and Library fee together, $5. Graduation fee, $25. Practical Anatomy and Dissection $10—ticket to be taken at least once before graduation. Rooms open from 1st October.

A preliminary course of lectures, free to all students, will be delivered during the month of October.

Clinical instruction is given twice a week at the Louisville Marine Hospital. Ticket $5, to be taken once before Graduation.

A Clinique has also been established in connection with the University, at which operations are performed and cases prescribed for and lectured upon in presence of the class.

☞ Good boarding can be procured at from $3 50 to $3 a week.

L. P. YANDELL, M. D.,
Dean of the Faculty.

July, 1852.—4m

STARLING MEDICAL COLLEGE.

COLUMBUS, OHIO.

The Regular Course of Lectures in this institution will commence on Monday, the first day of November next, (November 1, 1852) and continue four months. The *preliminary course* will commence on Monday, the 18th of October, and continue to the end of the month.

During the latter course, the following subjects will be taught:

Minor Surgery,	Dr. Howard.
Insanity,	" Smith.
General Physiology,	" Carter.
Microscopical Anatomy,	" Paddock.
Poisons,	" Hills.

The above course is *free* to all matriculants.

FACULTY.

R. H PADDOCK, M. D., Professor of Anatomy and Physiology.
RICHARD L. HOWARD, M. D., Professor of Surgery.
SAMUEL M. SMITH, M. D., Professor of the Practice of Medicine.
FRANCIS CARTER, M. D., Professor of Obstetrics and Pathology.
CHARLES A. LEE, M. D., Professor of Materia Medica, and Medical Jurisprudence.
FREDERICK MERRICK, M. D., Professor of Chemistry.
C. C. PARKER, M. D., Demonstrator of Anatomy.

FEES.

Lectures,	$60 00	Graduation,	$20 00
Matriculation,	3 00	Dissecting Ticket,	5 00

Weekly Clinical Lectures will be delivered, and Surgical Operations performed before the class, upon cases derived from the College Hospital and from Private Practice.

Letters addressed to the Dean, or any Member of the Faculty, will be promptly answered.

S. M. SMITH,
Dean of the Faculty.

July, 1852.—2m